

# **DODGE<sup>®</sup> GEAR** **ENGINEERING** **CATALOG Vol. 2.1**

**DODGE<sup>®</sup> Speed Reducers**

**MASTER<sup>®</sup> Gearmotors**

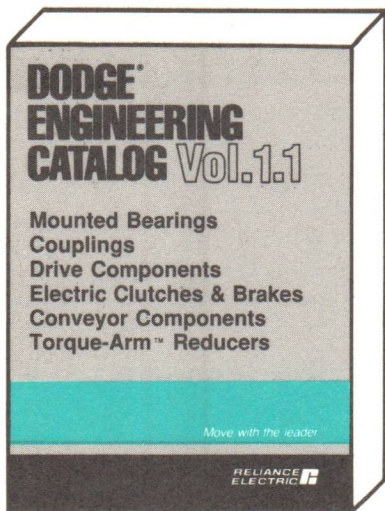
**DODGE<sup>®</sup> Gearmotors**

**REEVES<sup>®</sup> Adjustable  
Speed Drives**

*Move with the leader<sup>™</sup>*

**RELIANCE**  
**ELECTRIC** 





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**DODGE·MASTER·REEVES**  
*RELIANCE ELECTRIC* 



# **DODGE<sup>®</sup> MASTER<sup>®</sup> REEVES<sup>®</sup>**

## **GEAR CATALOG**

### **NEW PRODUCTS IN THIS CATALOG**

- **DODGE APG  
American Parallel  
Gearing**

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<b>MASTER XL Right Angle Reducers &amp; Gearmotors</b>	<b>G2</b>
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<b>DODGE TORQUE-ARM Shaft Mounted Reducers</b>	<b>G5</b>
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<b>DODGE HYDROIL Reducers</b>	<b>G7</b>
<b>DODGE V-Belt Drives for Torque-Arm Reducers</b>	<b>G8</b>
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<b>REEVES Mechanical Adjustable Speed Belt Drives</b>	<b>M1</b>
<b>DISCTRAC Dry Traction Disc Drives</b>	<b>M2</b>
<b>REEVES &amp; LEWELLEN Adjustable Speed Pulleys</b>	<b>M3</b>
<b>REEVES VARI-SPEED<sup>®</sup> Transmissions</b>	<b>M4</b>
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That Dodge<sup>®</sup>, Master<sup>®</sup> and Reeves<sup>®</sup> products give you quality, value and dependability.

That's been proven by you—American industry. We supply the unit and bulk material handling and processing industry with everything from drive components to controlled start transmissions. And we do it with proven performers such as the Dodge Type E Roller Bearing and Torque-Arm<sup>™</sup> Speed Reducer. We also bring you innovative,

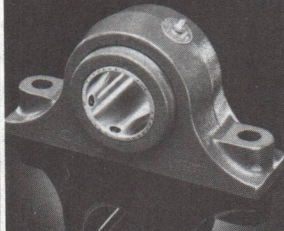
new products such as the Reeves MAS 51, the latest mechanical adjustable speed drive, and the Dodge S-2000, the one that's going to make all other setscrew spherical bearings virtually obsolete.

And we stand behind our products with people that have the technical expertise that sets the industry standard. We've been doing it for over a century.

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**RELIANCE ELECTRIC** 

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Type E**



**DODGE Tigear<sup>®</sup>  
Speed Reducer**



**DODGE  
S-2000**



**DODGE  
Torque-Arm<sup>™</sup>  
Speed Reducer**



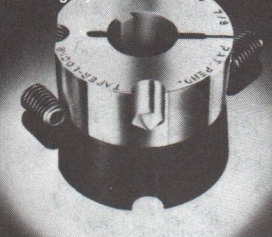
**DODGE  
TAF-XT**



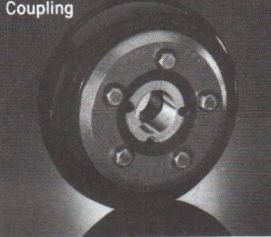
**REEVES  
MAS 51**



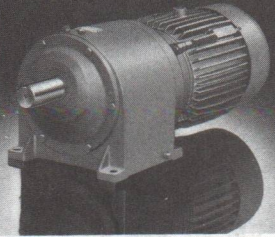
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Bushing System**



**DODGE  
Para-Flex<sup>®</sup>  
Coupling**



**DODGE APG  
Parallel Gearmotor**



For more information, see your DODGE • MASTER • REEVES/Reliance Electric Industrial Co. Distributor or call (803) 297-4800.



# WE JUST MADE YOUR JOB A LITTLE EASIER.

A critical part of your job is to find the right speed reducer or gearmotor that can deliver the speed and torque you need for your specific application. And we just made it easier for you.

In almost every industry and almost every kind of application, Dodge® and Master® offer the product selection to meet your requirements. And we do it with proven performers such as Dodge Torque-Arm™ and TM speed reducers for heavy duty applications and the Dodge Tigear® reducer

and Master XL gearmotor for medium and light duty.

They all give you longer service, lower maintenance costs and reduced downtime. And they do it with quality gearing, rugged cast iron construction, mounting versatility, installation ease and a technically advanced, space-saving design. Further, we stand behind our products with distributors and engineers who have the technical expertise to help you with your application problems.

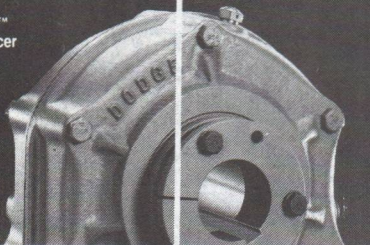
You'll get more efficiency, more performance and more value. In short, the best enclosed gear drive package available to get the job done.

Which is just what you'd expect when you move with the leader.

*Move with the leader.  
Specify Dodge and Master.*

**DODGE-MASTER**   
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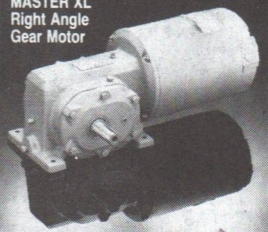
**DODGE  
Torque-Arm™  
Speed Reducer**



**DODGE Tigear  
Speed Reducer**



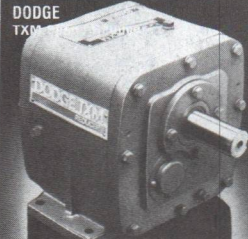
**MASTER XL  
Right Angle  
Gear Motor**



**DODGE  
Screw Conveyor Drive**



**DODGE  
TM**



**DODGE APG  
Parallel Gearmotor**



For more information on the full line of DODGE Speed Reducers, Tigear® Right Angle, Master® XL Right Angle and Parallel, TM Concentric™ and Torque-Arm™ Shaft Mounted, call 1-803-297-4800. Or see your local DODGE, MASTER or RELIANCE ELECTRIC Distributor in the yellow pages.



# HOW MUCH CAN THIS SPEED REDUCER REDUCE YOUR COSTS?

Now—with the increased horsepower ratings of Dodge® Torque-Arm™ reducers—you can probably go to a smaller size reducer and still get the power you need.

Or stay with the same size reducer and expect a longer reducer life. Either way, you save money.

Since the Torque-Arm reducer mounts directly on the driven shaft, there's no need for a coupling, chain drive, sliding motor base or support structure. There's no

alignment problem. Exclusive twin tapered bushings provide easy, faster installation and a positive grip on the shaft. And that means savings, too.

The internal components of the Torque-Arm line have been improved as well. Rugged, cast iron housings are precision match-bored and provide strong, rigid support for bearings and gearing. The case carburized helical gearing produces high, efficient rolling gear action. And double lip seals keep lubricants in and contaminants

out. A full line of accessories add flexibility to your Torque-Arm reducer.

Dodge Torque-Arm reducers are 100% factory noise and leak tested to assure long life, trouble-free service and the value you expect from over one million units delivered.

*Move with the leader. Specify Dodge.*

**DODGE**

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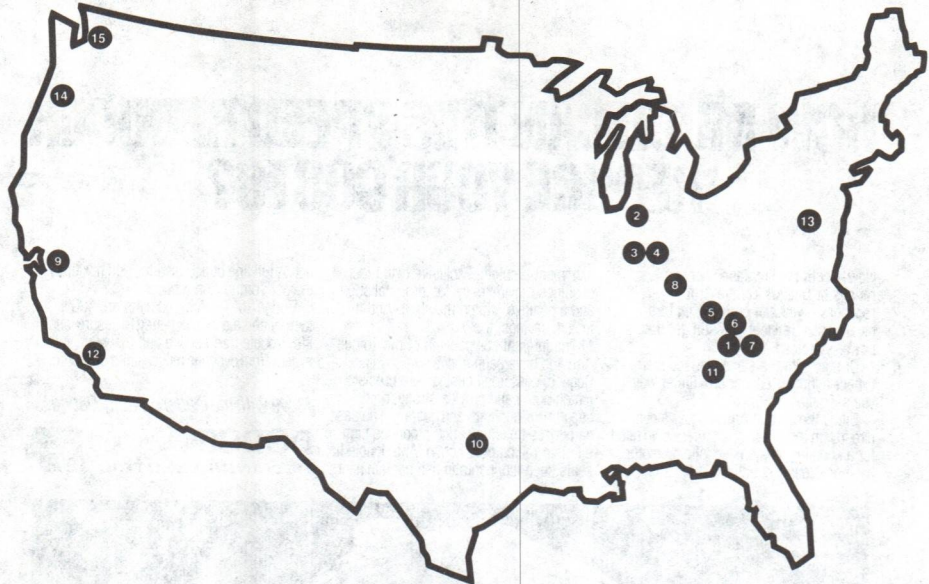


**DODGE  
Torque-Arm  
Speed Reducer**

**Exclusive Twin Tapered Bushings**

- Easy installation and removal
- No puller required
- Eliminates reducer wobble
- Assures positive grip on shaft

For more information on the full line of DODGE Speed Reducers, Tigear® Right Angle, Master® XL Right Angle and Parallel, TM Concentric™ and Torque-Arm™ Shaft Mounted, call 1-803-297-4800. Or see your local DODGE/RELiance ELECTRIC Distributor in the yellow pages.



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- 3 Columbus, IN—Reeves Plant—MAS & Large Bearings
- 4 Columbus, IN—Master Plant—Gear & Clutch Products
- 5 Rogersville, TN—Bearings & Coupling Products
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- 7 Greenville, SC—Gear Products
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- 14 Portland, OR—Regional Warehouse
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- DODGE de Mexico—Mexico—Bearings, Couplings, Drive Products
- DODGE U.K.—United Kingdom—Gear, Bearings, Couplings, Drive Products



# DODGE®

## TIGEAR® SPEED REDUCERS



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# Our exclusive RELIALUBE® System gives you the only pressure vented gearbox with no open path to the environment

RELIALUBE standard features include:

- Cast iron gearcase & bearing housings
- Computer designed gearing
- Stepped shafts
- Self-locking hardware
- Tapered roller bearings on output shafts

① A special compression chamber lowers the gearcase pressure without the use of conventional vents and their associated seepage and contamination path.

A synthesized hydrocarbon lubricant stays contamination free and won't break down under normal operating conditions. It allows a wide operating temperature range of  $-10^{\circ}$  to  $165^{\circ}\text{F}$  Ambient. The lubricant meets USDA Class H-2 standards.

RELIALUBE models are available with integral C-face, separate input or C-adapted separate with 3-piece coupling.

② Interchangeable, bolt-on, industry standard base mounting dimensions.

The RTV joint sealant provides stronger, more rigid joints with wider temperature range and greater temperature resistance than gaskets. It also has a higher resistance to chemicals or solvents.

③ The spring loaded wave-type lip seals act to reduce seal drag, promoting longer seal life. The unique design keeps oil in and contaminants out.

**You don't need a maintenance schedule anymore. No periodic maintenance is required because it's virtually maintenance free.**

RELIALUBE is an exclusive systems approach to lubricating, sealing and cooling the components in an enclosed gearbox.

## RELIALUBE Series

- $\frac{1}{4}$  to 5 HP
- 5:1 to 60:1 reductions
- 1.33" to 3.5" center distances

## Installation Ready, Virtually Maintenance Free

- It is properly filled with lubricant at the factory.
- There are no vent plugs to install or reposition.
- The top of case is drilled and tapped for multi-mount capability.
- A mounting base is provided with the unit.
- The input and output shafts and seals are masked and protected.
- Self-locking motor mounting bolts are provided with the unit.
- An antiseize lubricant is provided for the shaft coupling.

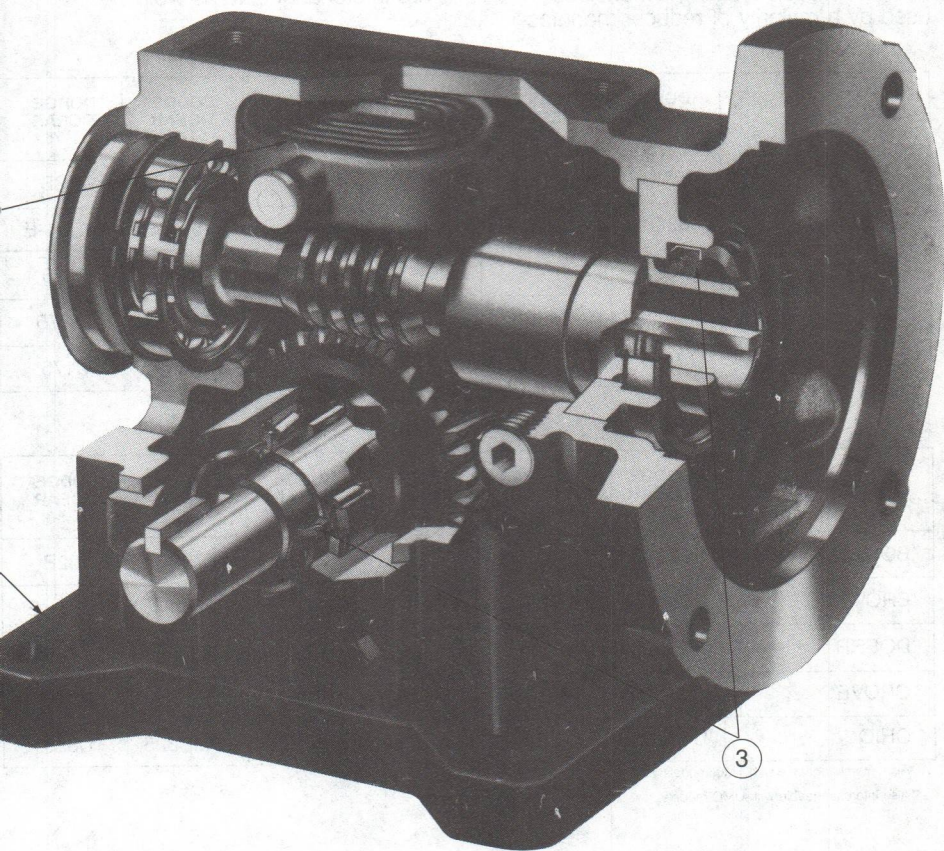


AGMA MEMBER

**\*BISSC CERTIFIED**

\*When used footless or with optional cast iron base only applies to BISSC Cert.





References	Selection p. G1-8—G1-9	Ratings p. G1-10—G1-13	Inst./Maint./Opt. p. G1-41—G1-42	Delivery p. G1-48	Parts p. G1-44—G1-47
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**G1-5**



# DODGE TIGEAR® Speed Reducers have unequalled versatility.

DODGE TIGEAR reducers with the RELIALUBE system feature industry-standard base mounting dimensions used by a majority of reducer manufac-

turers. In most cases, the base to shaft center dimensions and shaft diameters are interchangeable as well.

DODGE	DODGE TIGEAR 133	DODGE TIGEAR S133	DODGE TIGEAR 150	DODGE TIGEAR S150	DODGE TIGEAR 175	DODGE TIGEAR S175
BOSTON	F713B	713B	F715B	715B	F718B	718B
BROWNING	133C1-E	133U1-E	154C1-E	154U1-E	175C1-E	175U1-E
DOERR					TQ175	T175
GROVE*	TM1133	T1133			TM1175	T1175
OHIO**	U-MC133	U133			U-MC175	U175

DODGE	DODGE TIGEAR 200	DODGE TIGEAR S200	DODGE TIGEAR 262	DODGE TIGEAR S262	DODGE TIGEAR 350	DODGE TIGEAR S350
BOSTON	F721B	721B	F726B	726B	F732B	732B
BROWNING	206C1-E	206U1-E	262C1-E	262U1-E	325C1-E	325U1-E
DOERR	TQ206	T206	TQ262	T262	TQ325	T325
GROVE*	TM1206	T1206	TM1262	T1262	TM1325	T1325
OHIO**	U-MC206	U206	U-MC262	U262	U-MC325	U325

\*Also interchangeable with TMQ models.

\*\*Also interchangeable with UMQ models.

# EASY REFERENCE TABLE

This **Quick Reference Table** is for specific Input Horsepower at 1750 RPM when Output RPM and Ratios are known. Trace across from Output RPM/Ratio row to Input HP requirements above. You will find Reducer

(Case) Size and page numbers for each specific size. Note motor frame sizes listed.

This chart does not include all possible selections.

## Right Angle C-Face Reducers @ 1750 Input RPM

RPM OUT	RATIO	Motor Frame HP In	56C 1/4	56C 1/3	56C 1/2	56C 3/4	56C 1	140TC 1 1/2	140TC 2	180TC 3	180TC 5
350	5	Size Page	133 G1-14	133 G1-14	133 G1-14	133 G1-14	133 G1-14	175 G1-18	175 G1-18	262 G1-22	350 G1-24
233	7.5	Size Page	150 G1-16	150 G1-16	150 G1-16	150 G1-16	200 G1-20	200 G1-20	262 G1-22	262 G1-22	
175	10	Size Page	133 G1-14	133 G1-14	133 G1-14	150 G1-16	175 G1-18	200 G1-20	262 G1-22	262 G1-22	350 G1-24
138	12.67	Size Page	200 G1-20	200 G1-20	200 G1-20	200 G1-20	200 G1-20	262 G1-22	262 G1-22		
117	15	Size Page	133 G1-14	133 G1-14	133 G1-14	150 G1-16	175 G1-18	262 G1-22	262 G1-22	350 G1-24	
97	18	Size Page	200 G1-20	200 G1-20	200 G1-20	200 G1-20	262 G1-22	262 G1-22			
88	20	Size Page	133 G1-14	133 G1-14	150 G1-16	175 G1-18	175 G1-18	262 G1-22	350 G1-24	350 G1-24	
70	25	Size Page	133 G1-14	133 G1-14	175 G1-18	175 G1-18	262 G1-22	262 G1-22	350 G1-24	350 G1-24	
58	30	Size Page	133 G1-14	133 G1-14	175 G1-18	200 G1-20	262 G1-22	350 G1-24	350 G1-24		
44	40	Size Page	133 G1-14	133 G1-14	175 G1-18	262 G1-22	262 G1-22	350 G1-24	350 G1-24		
35	50	Size Page	150 G1-16	175 G1-18	200 G1-20	262 G1-22	350 G1-24	350 G1-24			
29	60	Size Page	175 G1-18	200 G1-20	262 G1-22	262 G1-22	350 G1-24				

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Parts p. G1-44—G1-47
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# Selection Information

**SELECTION EXAMPLE:** A small conveyor, uniformly loaded, requires a direct coupled worm gear speed reducer to drive a light continuous belt. A 1750 RPM electric motor is to be the prime mover. Reducer output shaft must drive conveyor at approximately 115 RPM. Conveyor loaded averages 200 in. lbs. (100 lbs. over 2" radius pulley.) The machine is expected to operate 24 hours per day.

**STEP No. 1. SERVICE FACTOR** table indicates requirement of 1.25 for an electric motor driven gearbox under required 24-hour uniform load conditions. **EQUIVALENT LOAD** is calculated as 200 in. lbs.  $\times$  1.25 = 250 in. lbs. **RATIO** is calculated by dividing input speed (1750 RPM) by required output speed (115 RPM). (1750  $\div$  115 = 15:1 ratio.)

**STEP No. 2.** Refer to **RATING TABLE** (page G1-10) and select the output torque rating opposite the 15:1 ratio that equals or slightly exceeds the requirement (250 in. lbs.). In this case, the 150 reducer with a rating of 313 in. lbs. at 15:1 ratio would be the proper selection based on mechanical capacity.

**STEP No. 3.** Refer to **MODEL SELECTION** (page G1-16). In the example it states a direct coupled reducer is required. From these pages the mounting position, dimensions, price and rating information for the specific reducer can be obtained.

**STEP No. 4.** To check **MINIMUM MOTOR HP** Use:

$$\text{HP (Req'd.)} = \frac{\text{Speed} \times \text{Torque (Req'd.)}}{63025}$$

$$\text{HP (OUT)} = \frac{115 \times 200}{63025}$$

$$\text{HP (OUT)} = .3649$$

To determine input horsepower; divide output horsepower by gearbox efficiency.

$$\text{HP (IN)} = \frac{\text{HP (OUT)}}{\text{Efficiency}} = \frac{\text{HP (OUT)}}{\frac{\text{HP (MAX OUT)}}{\text{HP (MAX IN)}}} = \frac{.3649}{.58} = \frac{.3649}{.7733} = .47$$

Therefore a 1/2 HP motor is required. Make certain gearbox will handle HP input. If gearbox selection is too small — select next higher gearbox size.

**STEP No. 5.** If the output shaft is connected by other than a flexible coupling, calculate the **OVERHUNG LOAD**.—Refer to the table on page G1-9 headed "OVERHUNG LOAD."

**NOTE:** On drives which utilize a DC motor input or on applications where frequent cycling and reversals occur; a three-piece coupled "S" series reducer is recommended. Use of hollow bore reducers on these applications may result in fretting corrosion at the motor coupling.

References	Ratings p. G1-10—G1-13	Selection p. G1-8—G1-9	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39
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## Reducer Service Factors

Prime Mover	Duration of Service Per Day	Driven Machine Load Classification		
		Uniform	Medium Shock	Heavy Shock
Electric Motor	Occasional ½ hr.	0.80	0.90	1.00
	Intermittent 2 hrs.	0.90	1.00	1.25
	10 hours	1.00	1.25	1.50
	24 hours	1.25	1.50	1.75
Electric Motor With Frequent Starts and Stops	Occasional ½ hr.	0.90	1.00	1.25
	Intermittent 2 hrs.	1.00	1.25	1.50
	10 hours	1.25	1.50	1.75
	24 hours	1.50	1.75	2.00
Multi-cylinder Internal Combustion Engine	Occasional ½ hr.	0.90	1.00	1.25
	Intermittent 2 hrs.	1.00	1.25	1.50
	10 hours	1.25	1.50	1.75
	24 hours	1.50	1.75	2.00
Single Cylinder Internal Combustion Engine	Occasional ½ hr.	1.00	1.25	1.50
	Intermittent 2 hrs.	1.25	1.50	1.75
	10 hours	1.50	1.75	2.00
	24 hours	1.75	2.00	2.25

## Overhung Load

To determine overhung load, divide the torque (in. lb.) required by the pitch radius of the sprocket, sheave, etc. and multiply, by the appropriate factor as follows:

Chain Drive	1.00	V-Belt	1.50
Synchronous Belt Drive	1.10	Flat Belt	2.50
Spur or Helical Gear	1.25		

The calculated overhung load must not exceed the Output Shaft rating which is expressed in pounds.

For loads acting at more than one shaft diameter from bearing housing, use following conversion factors:

Distance in Shaft Diameters From Brg. Hsg.	Multiply OHL Capacity By This Factor
1 D	1.0
2 D	.65
3 D	.45
4 D	.35
5 D	.30

## NOMENCLATURE

### DODGE TIGEAR Speed Reducers with the RELIALUBE System

Nomenclature on RELIALUBE system speed reducers includes: Motor frame size/reducer case size—ratio (L1 or LK—if other than standard K shaft position required). If unit has keyed input shaft or bolt on C-adapter, an "S" will appear prior to the case size, i.e., 56/S150-30.

Examples:

**56/150-30** (56 NEMA C Face/150 case size reducer—30:1 ratio, standard K shaft position.)

**56/150-30L1** (56C NEMA C Face/150 case size reducer—30:1 ratio, optional L shaft position.)

**56/150-30LK**—same as above except double output shaft.

For special shafts, ratios, paint, or other modifications not shown, contact our Applications Engineering Center at 812/376-1100.



# Rating Tables

## TIGEAR Right Angle Reducers with RELIALUBE®

### 2500 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			133/S133	150/S150	175/S175	200/S200	262/S262	350/S350
Refer to the following pages for Selection Information on each size.			G1-14/G1-26	G1-16/G1-28	G1-18/G1-30	G1-20/G1-32	G1-22/G1-34	G1-24/G1-36
5	500	Max. HP In Max. Torque Out (In. lbs.)	1.17 126	1.59 176	2.14 240	2.65 303	5.00 533	6.95 810
7.5(1)	333	Max. HP In Max. Torque Out (In. lbs.)		1.15 184		2.18 365	3.66 627	
10	250	Max. HP In Max. Torque Out (In. lbs.)	.88 181	1.19 252	1.68 363	2.00 436	3.38 763	5.50 1265
12.67(1)	197	Max. HP In Max. Torque Out (In. lbs.)				1.66 450	3.16 895	
15	167	Max. HP In Max. Torque Out (In. lbs.)	.69 200	.92 276	1.41 441	1.50 467	2.70 885	4.08 1337
18(1)	139	Max. HP In Max. Torque Out (In. lbs.)				1.32 483	2.34 916	
20	125	Max. HP In Max. Torque Out (In. lbs.)	.60 220	.70 265	1.15 456	1.30 521	2.21 949	3.36 1416
25	100	Max. HP In Max. Torque Out (In. lbs.)	.51 220	.55 253	1.00 464	1.12 548	1.82 937	3.16 1642
30	83	Max. HP In Max. Torque Out (In. lbs.)	.45 216	.54 269	.83 437	.89 477	1.58 925	3.00 1702
40	63	Max. HP In Max. Torque Out (In. lbs.)	.41 243	.44 268	.69 464	.79 530	1.23 885	2.09 1537
50	50	Max. HP In Max. Torque Out (In. lbs.)	.29 188	.39 283	.58 474	.68 548	1.00 850	1.91 1688
60	42	Max. HP In Max. Torque Out (In. lbs.)	.20 137	.27 210	.39 350	.55 499	.96 949	1.58 1622

(1) Separate reducers not available in this ratio.

### 1750 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			133/S133	150/S150	175/S175	200/S200	262/S262	350/S350
Refer to the following pages for Selection Information on each size.			G1-14/G1-26	G1-16/G1-28	G1-18/G1-30	G1-20/G1-32	G1-22/G1-34	G1-24/G1-36
5	350	Max. HP In Max. Torque Out (In. lbs.)	1.00 152	1.26 199	2.14 344	2.68 439	4.62 771	6.61 1097
7.5(1)	233	Max. HP In Max. Torque Out (In. lbs.)		.912 207		1.97 550	3.67 896	
10	175	Max. HP In Max. Torque Out (In. lbs.)	.68 195	.95 282	1.42 436	1.88 588	3.00 951	5.10 1671
12.67(1)	138	Max. HP In Max. Torque Out (In. lbs.)				1.51 578	2.61 1047	
15	117	Max. HP In Max. Torque Out (In. lbs.)	.54 217	.75 313	1.13 496	1.39 622	2.24 1029	3.79 1751
18(1)	97	Max. HP In Max. Torque Out (In. lbs.)				1.14 587	1.95 1071	
20	87	Max. HP In Max. Torque Out (In. lbs.)	.47 239	.59 307	1.00 530	1.11 618	1.77 1065	3.15 1884
25	70	Max. HP In Max. Torque Out (In. lbs.)	.37 220	.44 288	.78 513	.91 639	1.52 1098	3.00 2197
30	58	Max. HP In Max. Torque Out (In. lbs.)	.35 235	.43 295	.71 521	.79 599	1.31 1075	2.70 2325
40	44	Max. HP In Max. Torque Out (In. lbs.)	.33 261	.37 314	.57 527	.67 626	1.00 995	2.00 1977
50	35	Max. HP In Max. Torque Out (In. lbs.)	.21 186	.29 279	.43 477	.58 632	.90 1053	1.80 2215
60	29	Max. HP In Max. Torque Out (In. lbs.)	.14 137	.19 204	.28 346	.40 496	.82 1095	1.13 1557

(1) Separate reducers not available in this ratio.

# 1160 RPM INPUT

			CASE SIZE					
Ratio	RPM Out	Rating Data	133/S133	150/S150	175/S175	200/S200	262/S262	350/S350
Refer to the following pages for Selection Information on each size.			G1-14/G1-26	G1-16/G1-28	G1-18/G1-30	G1-20/G1-32	G1-22/G1-34	G1-24/G1-36
5	232	Max. HP In Max. Torque Out (In. lbs.)	.79 184	.95 222	1.62 388	2.48 610	4.37 1094	6.35 1583
7.5(1)	155	Max. HP In Max. Torque Out (In. lbs.)		.608 204		1.32 469	3.18 1164	
10	116	Max. HP In Max. Torque Out (In. lbs.)	.51 222	.70 308	1.05 477	1.51 695	2.47 1175	4.71 2318
12.67(1)	92	Max. HP In Max. Torque Out (In. lbs.)				1.22 693	2.10 1247	
15	77	Max. HP In Max. Torque Out (In. lbs.)	.40 242	.53 323	.85 541	1.13 737	1.84 1246	3.78 2636
18(1)	64	Max. HP In Max. Torque Out (In. lbs.)				.923 696	1.57 1280	
20	58	Max. HP In Max. Torque Out (In. lbs.)	.34 256	.47 368	.71 576	.88 729	1.50 1325	3.00 2596
25	46	Max. HP In Max. Torque Out (In. lbs.)	.25 216	.31 297	.53 509	.78 774	1.21 1282	2.56 2783
30	39	Max. HP In Max. Torque Out (In. lbs.)	.26 250	.35 349	.54 573	.65 697	1.11 1320	2.23 2793
40	29	Max. HP In Max. Torque Out (In. lbs.)	.22 254	.30 383	.45 607	.55 748	.83 1197	1.84 2761
50	23	Max. HP In Max. Torque Out (In. lbs.)	.14 181	.19 272	.29 469	.41 646	.75 1269	1.35 2365
60	19	Max. HP In Max. Torque Out (In. lbs.)	.10 132	.13 197	.19 321	.28 491	.58 1113	.77 1522

(1) Separate reducers not available in this ratio.

# 860 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			133/S133	150/S150	175/S175	200/S200	262/S262	350/S350
Refer to the following pages for Selection Information on each size.			G1-14/G1-26	G1-16/G1-28	G1-18/G1-30	G1-20/G1-32	G1-22/G1-34	G1-24/G1-36
5	172	Max. HP In Max. Torque Out (In. lbs.)	.65 200	.80 248	1.36 434	1.87 613	3.95 1321	5.79 1931
7.5(1)	115	Max. HP In Max. Torque Out (In. lbs.)		.453 203		.993 467	2.42 1182	
10	86	Max. HP In Max. Torque Out (In. lbs.)	.41 234	.57 336	.84 504	1.21 743	2.13 1338	4.45 2901
12.67(1)	68	Max. HP In Max. Torque Out (In. lbs.)				1.04 781	1.80 1429	
15	57	Max. HP In Max. Torque Out (In. lbs.)	.32 255	.43 360	.68 571	.95 829	1.60 1432	3.32 3054
18(1)	48	Max. HP In Max. Torque Out (In. lbs.)				.789 787	1.35 1445	
20	43	Max. HP In Max. Torque Out (In. lbs.)	.27 272	.38 396	.45 479	.76 824	1.29 1526	2.67 3109
25	34	Max. HP In Max. Torque Out (In. lbs.)	.19 215	.23 292	.40 508	.59 759	.91 1271	2.00 2798
30	29	Max. HP In Max. Torque Out (In. lbs.)	.21 264	.28 366	.44 609	.56 783	.84 1315	2.00 3190
40	22	Max. HP In Max. Torque Out (In. lbs.)	.16 254	.25 387	.34 591	.50 836	.75 1371	1.61 3128
50	17	Max. HP In Max. Torque Out (In. lbs.)	.11 179	.15 267	.23 462	.33 637	.67 1452	1.23 2769
60	14	Max. HP In Max. Torque Out (In. lbs.)	.07 130	.10 194	.15 320	.21 459	.28 1077	.61 1503

(1) Separate reducers not available in this ratio.



# Rating Tables

## TIGEAR Right Angle Reducers with RELIALUBE®

### 600 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			133/S133	150/S150	175/S175	200/S200	262/S262	350/S350
Refer to the following pages for Selection Information on each size.			G1-14/G1-26	G1-16/G1-28	G1-18/G1-30	G1-20/G1-32	G1-22/G1-34	G1-24/G1-36
5	120	Max. HP In Max. Torque Out (In. lbs.)	.50 215	.56 247	1.06 481	1.29 600	3.00 1423	5.36 2548
7.5(1)	80	Max. HP In Max. Torque Out (In. lbs.)		.318 202		.69 459	1.70 1164	
10	60	Max. HP In Max. Torque Out (In. lbs.)	.30 245	.42 349	.64 547	.93 812	2.05 1833	4.19 3791
12.67(1)	47	Max. HP In Max. Torque Out (In. lbs.)				.827 872	1.49 1682	
15	40	Max. HP In Max. Torque Out (In. lbs.)	.25 264	.33 381	.52 622	.73 895	1.54 1939	3.24 4196
18(1)	33	Max. HP In Max. Torque Out (In. lbs.)				.646 905	1.01 1526	
20	30	Max. HP In Max. Torque Out (In. lbs.)	.21 289	.30 429	.45 659	.62 932	.93 1529	2.49 4029
25	24	Max. HP In Max. Torque Out (In. lbs.)	.13 212	.17 291	.29 496	.42 745	.65 1256	1.37 2708
30	20	Max. HP In Max. Torque Out (In. lbs.)	.16 277	.22 410	.33 635	.43 847	.60 1279	1.24 2821
40	15	Max. HP In Max. Torque Out (In. lbs.)	.12 254	.17 383	.24 560	.35 857	.71 1823	1.46 3843
50	12	Max. HP In Max. Torque Out (In. lbs.)	.08 181	.10 250	.16 425	.23 647	.50 1462	1.13 3465
60	10	Max. HP In Max. Torque Out (In. lbs.)	.05 130	.07 189	.11 321	.15 459	.32 1074	.43 1472

(1) Separate reducers not available in this ratio.

### 300 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			133/S133	150/S150	175/S175	200/S200	262/S262	350/S350
Refer to the following pages for Selection Information on each size.			G1-14/G1-26	G1-16/G1-28	G1-18/G1-30	G1-20/G1-32	G1-22/G1-34	G1-24/G1-36
5	60	Max. HP In Max. Torque Out (In. lbs.)	.28 234	.28 241	.55 482	.67 603	1.54 1413	4.18 3843
7.5(1)	40	Max. HP In Max. Torque Out (In. lbs.)		.161 197		.363 467	.862 1138	
10	30	Max. HP In Max. Torque Out (In. lbs.)	.18 282	.15 403	.41 680	.55 918	1.20 2049	2.49 4357
12.67(1)	24	Max. HP In Max. Torque Out (In. lbs.)				.456 928	.881 1924	
15	20	Max. HP In Max. Torque Out (In. lbs.)	.13 275	.17 378	.27 614	.39 898	.90 2147	1.97 4853
18(1)	17	Max. HP In Max. Torque Out (In. lbs.)				.388 1034	.536 1551	
20	15	Max. HP In Max. Torque Out (In. lbs.)	.11 283	.16 420	.24 667	.34 956	.47 1449	1.57 4817
25	12	Max. HP In Max. Torque Out (In. lbs.)	.07 208	.08 272	.15 485	.22 738	.34 1230	.73 2684
30	10	Max. HP In Max. Torque Out (In. lbs.)	.08 273	.12 402	.19 658	.25 840	.32 1269	.61 2570
40	7.5	Max. HP In Max. Torque Out (In. lbs.)	.06 245	.09 376	.14 579	.20 855	.46 2117	.91 4460
50	6	Max. HP In Max. Torque Out (In. lbs.)	.04 171	.06 267	.10 463	.12 627	.28 1474	.62 3523
60	5	Max. HP In Max. Torque Out (In. lbs.)	.03 125	.04 170	.07 348	.09 478	.18 1039	.23 1469

(1) Separate reducers not available in this ratio.

# 100 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			133/S133	150/S150	175/S175	200/S200	262/S262	350/S350
Refer to the following pages for Selection Information on each size.			G1-14/G1-26	G1-16/G1-28	G1-18/G1-30	G1-20/G1-32	G1-22/G1-34	G1-24/G1-36
5	20	Max. HP In Max. Torque Out (In. lbs.)	.09 235	.09 237	.19 491	.22 589	.51 1381	1.43 3757
7.5(1)	13	Max. HP In Max. Torque Out (In. lbs.)		.055 197		.123 459	.293 1120	
10	10	Max. HP In Max. Torque Out (In. lbs.)	.06 288	.09 431	.14 679	.20 983	.45 2224	.88 4384
12.67(1)	8	Max. HP In Max. Torque Out (In. lbs.)				.154 880	.326 2031	
15	7	Max. HP In Max. Torque Out (In. lbs.)	.04 258	.06 377	.09 595	.13 872	.30 2041	.69 4755
18(1)	5.5	Max. HP In Max. Torque Out (In. lbs.)				.133 973	.187 1523	
20	5	Max. HP In Max. Torque Out (In. lbs.)	.035 278	.05 397	.08 645	.11 901	.15 1342	.59 4896
25	4	Max. HP In Max. Torque Out (In. lbs.)	.02 204	.03 260	.05 480	.07 711	.11 1161	.25 2533
30	3	Max. HP In Max. Torque Out (In. lbs.)	.03 260	.04 386	.06 590	.08 801	.11 1226	.20 2381
40	2.5	Max. HP In Max. Torque Out (In. lbs.)	.02 232	.03 355	.05 592	.07 847	.16 2016	.32 4112
50	5	Max. HP In Max. Torque Out (In. lbs.)	.01 172	.02 271	.03 406	.04 554	.10 1449	.22 3257
60	1.5	Max. HP In Max. Torque Out (In. lbs.)	.008 118	.01 147	.02 302	.03 465	.06 984	.08 1331

(1) Separate reducers not available in this ratio.



# DODGE TIGEAR Reducer Size 133

C-face, Hollow Bore Input

## ORDER INFORMATION

List Price \$392	Discount for Unit & Options D-46a
Wt. 17 lbs.	

## ORDER NUMBERS

Ratio	Frame 56C	
5	MR96100	MR96100L1
10	MR96101	MR96101L1
15	MR96102	MR96102L1
20	MR96103	MR96103L1
25	MR96104	MR96104L1
30	MR96105	MR96105L1
40	MR96106	MR96106L1
50	MR96107	MR96107L1
60	MR96108	MR96108L1

## OPTIONS

Description/Part Number	List Price
Double Extended Output Shaft (Add "LK" to Order Number)	\$60 List
Riser Block P/N RB94915	\$30 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

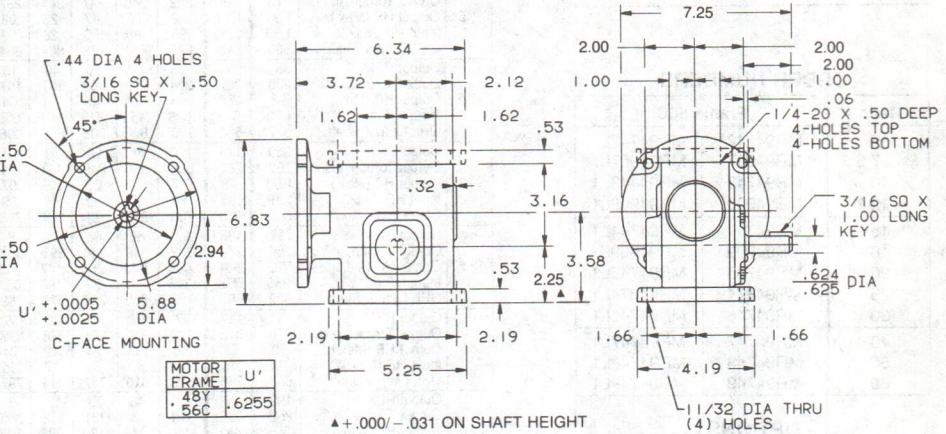
## RATING TABLE

Ratio	Rating Data	RPM INPUT							
		2500	1750	1160	860	600	300	100	50
5	Output RPM	500	350	232	172	120	60	20	10
	Output Torque, in.lb.	126	152	184	200	215	234	238	240
	Output HP (Max.)	1.00	.85	.68	.55	.41	.22	.07	.04
	Input HP (Max.)	1.17	1.00	.79	.65	.50	.28	.09	.05
	OHL Output Shaft	294	292	289	287	285	283	281	280
10	Output RPM	250	175	116	86	60	30	10	5
	Output Torque, in.lb.	181	195	222	234	245	282	288	290
	Output HP (Max.)	.72	.54	.41	.32	.23	.13	.04	.02
	Input HP (Max.)	.88	.68	.51	.41	.30	.18	.06	.03
	OHL Output Shaft	289	288	285	283	266	188	172	170
15	Output RPM	167	117	77	57	40	20	7	4
	Output Torque, in.lb.	200	217	242	255	264	275	258	256
	Output HP (Max.)	.53	.40	.30	.23	.17	.09	.03	.02
	Input HP (Max.)	.69	.54	.40	.32	.25	.13	.04	.02
	OHL Output Shaft	287	285	266	238	219	195	231	230
20	Output RPM	125	87	58	43	30	15	5	3
	Output Torque, in.lb.	220	239	256	272	289	283	278	276
	Output HP (Max.)	.44	.33	.24	.19	.14	.07	.02	.01
	Input HP (Max.)	.60	.47	.34	.27	.21	.11	.03	.02
	OHL Output Shaft	285	283	255	221	166	191	207	206
25	Output RPM	100	70	46	34	24	12	4	2
	Output Torque, in.lb.	220	220	216	215	212	208	204	201
	Output HP (Max.)	.35	.24	.16	.12	.08	.04	.01	.01
	Input HP (Max.)	.51	.37	.25	.19	.13	.07	.02	.01
	OHL Output Shaft	285	285	285	285	285	286	286	286
30	Output RPM	83	58	39	29	20	10	3	2
	Output Torque, in.lb.	216	235	250	264	277	273	260	256
	Output HP (Max.)	.29	.22	.15	.12	.09	.04	.01	.01
	Input HP (Max.)	.45	.35	.26	.21	.16	.08	.03	.02
	OHL Output Shaft	285	283	281	251	213	225	261	260
40	Output RPM	63	44	29	22	15	7.5	2.5	1.5
	Output Torque, in.lb.	243	261	254	254	254	245	232	230
	Output HP (Max.)	.24	.18	.12	.09	.06	.03	.01	.01
	Input HP (Max.)	.41	.33	.22	.16	.12	.06	.02	.01
	OHL Output Shaft	282	248	261	261	262	280	283	283
50	Output RPM	50	35	23	17	12	6	2	1
	Output Torque, in.lb.	188	186	181	179	181	171	172	172
	Output HP (Max.)	.15	.10	.07	.05	.03	.02	.005	.005
	Input HP (Max.)	.29	.21	.14	.11	.08	.04	.01	.01
	OHL Output Shaft	288	288	289	289	289	290	290	290
60	Output RPM	42	29	19	14	10	5	1.5	1.0
	Output Torque, in.lb.	137	137	132	130	130	125	118	118
	Output HP (Max.)	.09	.06	.04	.03	.02	.01	.003	.003
	Input HP (Max.)	.20	.14	.10	.07	.05	.03	.008	.008
	OHL Output Shaft	292	292	293	293	293	293	294	294

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-44—G1-45
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## DIMENSIONS

### EDGE TIGEAR Size 133

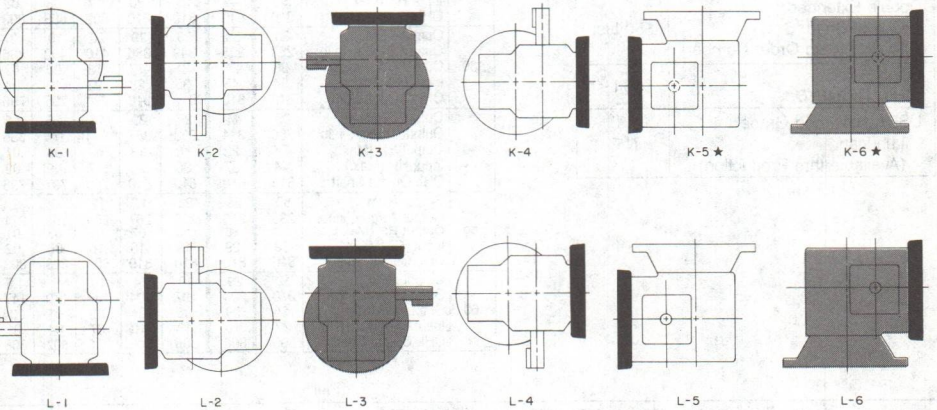


## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size 150

C-face, Hollow Bore Input

## ORDER INFORMATION

List Price \$432	Discount For Unit & Options
Wt. 22 lbs.	D-46a

## ORDER NUMBERS

Ratio	Frame 56C	
5	MR94742	MR94742L1
7.5	MR94907	MR94907L1
10	MR94743	MR94743L1
12.7	MR94908	MR94908L1
15	MR94744	MR94744L1
18	MR94909	MR94909L1
20	MR94745	MR94745L1
25	MR94874	MR94874L1
30	MR94746	MR94746L1
40	MR94747	MR94747L1
50	MR94748	MR94748L1
60	MR94749	MR94749L1

## OPTIONS

Description/Part Number	List Price
Conversion Base Kit P/N 411642-35-L	\$12 List
BISCC Cast Iron Base Kit P/N 411642-35-W	\$84 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$60 List
Riser Block P/N RB94916	\$36 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

## RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	176	199	222	248	247	241	237
	Output HP (Max.)	1.39	1.10	.82	.68	.47	.23	.08
	Input HP (Max.)	1.59	1.26	.95	.80	.56	.28	.09
	OHL Output Shaft	500	545	625	680	773	804	804
7.5	Output RPM	333	233	155	115	80	40	13
	Output Torque, in.lb.	208	207	204	203	202	197	197
	Output HP (Max.)	.98	.77	.50	.37	.26	.13	.04
	Input HP (Max.)	1.29	.912	.608	.453	.318	.161	.055
	OHL Output Shaft	577	664	779	806	806	806	806
10	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	252	282	308	336	349	403	431
	Output HP (Max.)	1.00	.78	.57	.46	.33	.15	.07
	Input HP (Max.)	1.19	.95	.70	.57	.42	.19	.09
	OHL Output Shaft	600	660	760	810	799	804	793
12.67	Output RPM	197	138	92	68	47	24	8
	Output Torque, in.lb.	250	274	302	319	344	390	332
	Output HP (Max.)	.782	.601	.439	.343	.259	.147	.042
	Input HP (Max.)	.955	.735	.545	.43	.33	.190	.057
	OHL Output Shaft	622	697	797	800	739	621	769
15	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	276	313	323	360	381	378	377
	Output HP (Max.)	.73	.58	.40	.33	.24	.12	.04
	Input HP (Max.)	.92	.75	.53	.43	.33	.17	.06
	OHL Output Shaft	690	760	810	810	797	795	797
18	Output RPM	139	97	64	48	33	17	5
	Output Torque, in.lb.	252	286	319	322	321	312	306
	Output HP (Max.)	.555	.441	.326	.244	.170	.082	.027
	Input HP (Max.)	.71	.573	.431	.329	.231	.118	.041
	OHL Output Shaft	730	802	800	800	800	801	801
20	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	265	307	368	396	429	420	397
	Output HP (Max.)	.53	.43	.34	.27	.20	.10	.03
	Input HP (Max.)	.70	.59	.47	.38	.30	.16	.05
	OHL Output Shaft	760	810	810	810	793	794	795
25	Output RPM	100	70	46	34	24	12	4
	Output Torque, in.lb.	253	288	297	292	291	272	260
	Output HP (Max.)	.40	.32	.22	.16	.11	.05	.02
	Input HP (Max.)	.55	.44	.31	.23	.17	.08	.03
	OHL Output Shaft	810	810	810	810	802	803	803
30	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	269	295	349	366	410	402	386
	Output HP (Max.)	.36	.27	.21	.17	.13	.06	.02
	Input HP (Max.)	.54	.43	.35	.28	.22	.12	.04
	OHL Output Shaft	810	810	810	810	794	795	796
40	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	268	314	383	387	383	376	355
	Output HP (Max.)	.27	.22	.18	.13	.09	.05	.01
	Input HP (Max.)	.44	.37	.30	.25	.17	.09	.03
	OHL Output Shaft	810	810	810	810	796	797	798
50	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	283	279	272	267	250	267	271
	Output HP (Max.)	.22	.16	.10	.07	.05	.03	.01
	Input HP (Max.)	.39	.29	.19	.15	.10	.06	.02
	OHL Output Shaft	810	810	810	810	804	803	803
60	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	210	204	197	194	189	170	147
	Output HP (Max.)	.14	.09	.06	.04	.03	.01	.004
	Input HP (Max.)	.27	.19	.13	.10	.07	.04	.01
	OHL Output Shaft	806	806	806	806	806	807	808

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-44—G1-45
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### EDGE TIGEAR Size 150



For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size 175

C-face, Hollow Bore Input

## ORDER INFORMATION

List Price \$480	Discount For Unit and Options D-46a
Wt. 28 lbs.	

## ORDER NUMBERS

Ratio	Frame 56C	
5	MR94750	MR94750L1
10	MR94751	MR94751L1
15	MR94752	MR94752L1
20	MR94753	MR94753L1
25	MR94868	MR94868L1
30	MR94754	MR94754L1
40	MR94755	MR94755L1
50	MR94756	MR94756L1
60	MR94757	MR94757L1
Ratio	Frame 140TC	
5	MR94758	MR94758L1
10	MR94759	MR94759L1
15	MR94879	MR94879L1

## OPTIONS

Description/Part Number	List Price
BISSC Cast Iron Base Kit P/N 411642-35-X	\$86 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$60 List
Riser Block P/N RB94917	\$40 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

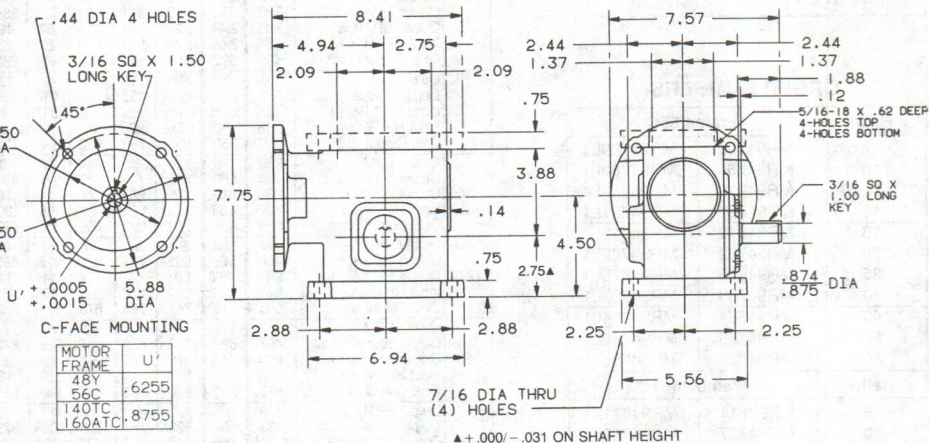
## RATING TABLE

Ratio	Rating Data	RPM INPUT							
		2500	1750	1160	860	600	300	100	50
5	Output RPM	500	350	232	172	120	60	30	15
	Output Torque, in.lb.	240	344	388	434	481	482	482	482
	Output HP (Max.)	1.91	1.91	1.43	1.18	.92	.46	.23	.12
	Input HP (Max.)	2.14	2.14	1.62	1.36	1.06	.55	.27	.14
	OHL Output Shaft	520	565	625	685	741	741	741	741
10	Output RPM	250	175	116	86	60	30	15	7.5
	Output Torque, in.lb.	363	436	477	504	547	680	680	680
	Output HP (Max.)	1.44	1.21	.88	.69	.52	.32	.16	.08
	Input HP (Max.)	1.68	1.42	1.05	.84	.64	.41	.21	.11
	OHL Output Shaft	630	695	747	747	735	722	722	722
15	Output RPM	167	117	77	57	40	20	10	5
	Output Torque, in.lb.	441	496	541	571	622	614	588	588
	Output HP (Max.)	1.17	.92	.66	.52	.40	.20	.10	.05
	Input HP (Max.)	1.41	1.13	.85	.68	.52	.27	.14	.07
	OHL Output Shaft	690	747	747	747	728	729	729	729
20	Output RPM	125	87	58	43	30	15	7.5	3.75
	Output Torque, in.lb.	456	530	576	479	659	667	667	667
	Output HP (Max.)	.91	.74	.53	.33	.31	.16	.08	.04
	Input HP (Max.)	1.15	1.00	.71	.45	.45	.24	.12	.06
	OHL Output Shaft	750	747	747	747	741	741	741	741
25	Output RPM	100	70	46	34	24	12	6	3
	Output Torque, in.lb.	464	513	509	508	496	485	485	485
	Output HP (Max.)	.74	.57	.38	.28	.19	.09	.05	.025
	Input HP (Max.)	1.00	.78	.53	.40	.29	.15	.08	.04
	OHL Output Shaft	750	747	747	747	735	722	722	722
30	Output RPM	83	58	39	29	20	10	5	2.5
	Output Torque, in.lb.	437	521	573	609	635	658	658	658
	Output HP (Max.)	.58	.48	.35	.28	.20	.10	.05	.025
	Input HP (Max.)	.83	.71	.54	.44	.33	.19	.10	.05
	OHL Output Shaft	750	747	747	747	728	729	729	729
40	Output RPM	63	44	29	22	15	7.5	3.75	1.875
	Output Torque, in.lb.	464	527	607	591	560	579	579	579
	Output HP (Max.)	.46	.37	.28	.20	.13	.07	.04	.02
	Input HP (Max.)	.69	.57	.45	.34	.24	.14	.08	.04
	OHL Output Shaft	750	747	747	747	734	732	732	732
50	Output RPM	50	35	23	17	12	6	3	1.5
	Output Torque, in.lb.	474	477	469	462	425	463	463	463
	Output HP (Max.)	.38	.27	.17	.13	.08	.04	.02	.01
	Input HP (Max.)	.58	.43	.29	.23	.16	.10	.05	.025
	OHL Output Shaft	750	750	750	750	745	742	742	742
60	Output RPM	42	29	19	14	10	5	2.5	1.25
	Output Torque, in.lb.	350	346	321	320	321	348	348	348
	Output HP (Max.)	.23	.16	.10	.07	.05	.03	.02	.01
	Input HP (Max.)	.39	.28	.19	.15	.11	.07	.04	.02
	OHL Output Shaft	750	755	760	760	752	750	750	750

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-44—G1-45
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## DIMENSIONS

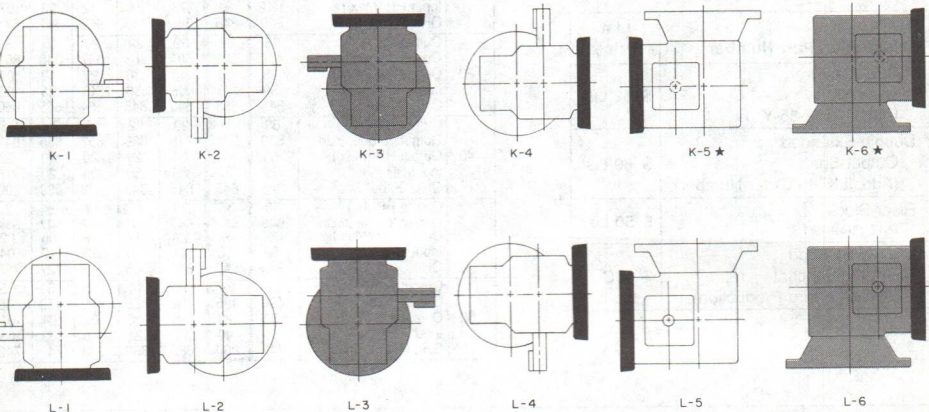
### EDGE TIGEAR Size 175



## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.  
 For Multimount Foot on Top mounting positions, see page G1-43





# DODGE TIGEAR Reducer Size 200

C-face, Hollow Bore Input

## ORDER INFORMATION

List Price \$560	Discount for Unit & Options
Wt. 31 lbs.	D-46a

## ORDER NUMBERS

Ratio	Frame 56C	
7.5	MR94909	MR94909L1
10	MR94760	MR94760L1
12.67	MR94910	MR94910L1
15	MR94761	MR94761L1
18	MR94912	MR94912L1
20	MR94762	MR94762L1
25	MR94875	MR94875L1
30	MR94763	MR94763L1
40	MR94764	MR94764L1
50	MR94765	MR94765L1
60	MR94766	MR94766L1
Ratio	Frame 140TC	
5	MR94611	MR94611L1
10	MR94767	MR94767L1
12.67	MR94911	MR94911L1
15	MR94904	MR94904L1
20	MR94905	MR94905L1
25	MR94906	MR94906L1

## OPTIONS

Description/Part Number	List Price
BISSC Cast Iron Base Kit P/N 411642-35-Y	\$112 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 60 List
Riser Block P/N RB94918	\$ 50 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

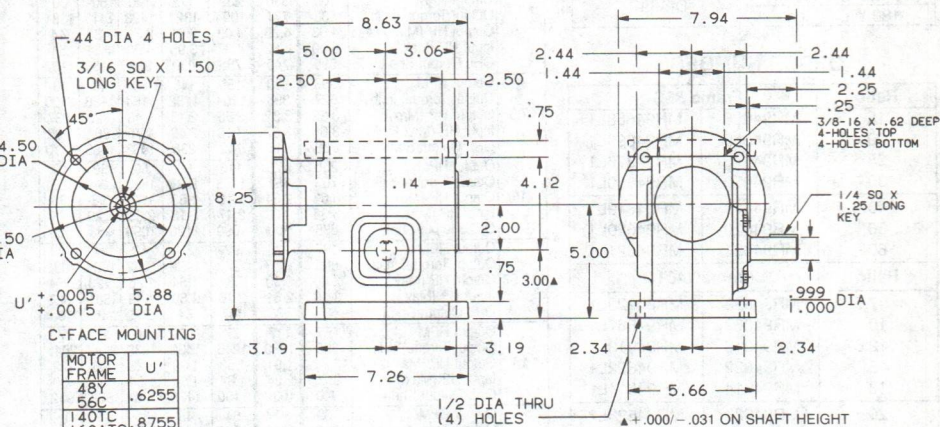
## RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	303	439	610	613	600	603	589
	Output HP (Max.)	2.41	2.44	2.25	1.67	1.14	.57	.19
	Input HP (Max.)	2.65	2.68	2.48	1.87	1.29	.67	.22
	OHL Output Shaft	495	522	560	630	682	682	682
7.5	Output RPM	333	233	155	115	80	40	13
	Output Torque, in.lb.	365	469	469	467	459	467	459
	Output HP (Max.)	1.929	1.738	1.152	.85	.58	.297	.09
	Input HP (Max.)	2.18	1.968	1.318	.993	.69	.363	.12
	OHL Output Shaft	536	550	667	763	822	820	822
10	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	436	588	695	743	812	918	983
	Output HP (Max.)	1.73	1.62	1.28	1.02	.77	.44	.16
	Input HP (Max.)	2.00	1.88	1.51	1.21	.93	.55	.20
	OHL Output Shaft	595	630	710	800	859	844	822
12.67	Output RPM	197	138	92	68	47	24	8
	Output Torque, in.lb.	450	578	693	781	872	928	880
	Output HP (Max.)	1.41	1.268	1.01	.842	.655	.349	.11
	Input HP (Max.)	1.66	1.51	1.22	1.04	.827	.456	.15
	OHL Output Shaft	653	678	741	768	673	577	655
15	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	467	622	737	829	895	898	873
	Output HP (Max.)	1.24	1.15	.91	.75	.57	.29	.09
	Input HP (Max.)	1.50	1.39	1.13	.95	.73	.39	.13
	OHL Output Shaft	680	730	830	845	648	647	655
18	Output RPM	139	97	64	48	33	17	5
	Output Torque, in.lb.	483	587	696	767	905	1034	973
	Output HP (Max.)	1.064	.906	.712	.597	.479	.274	.08
	Input HP (Max.)	1.32	1.14	.923	.789	.646	.388	.13
	OHL Output Shaft	827	808	788	769	655	443	540
20	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	521	618	729	824	932	956	907
	Output HP (Max.)	1.03	.86	.67	.56	.44	.23	.07
	Input HP (Max.)	1.30	1.11	.88	.76	.62	.34	.11
	OHL Output Shaft	735	830	845	845	642	636	647
25	Output RPM	100	70	46	34	24	12	4
	Output Torque, in.lb.	548	639	774	759	745	738	714
	Output HP (Max.)	.87	.71	.57	.41	.28	.14	.05
	Input HP (Max.)	1.12	.91	.78	.59	.42	.22	.07
	OHL Output Shaft	800	845	845	845	667	667	673
30	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	477	599	697	763	847	840	807
	Output HP (Max.)	.63	.56	.43	.36	.27	.13	.04
	Input HP (Max.)	.89	.79	.65	.56	.43	.25	.08
	OHL Output Shaft	845	850	845	845	654	655	660
40	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	530	626	748	836	857	855	847
	Output HP (Max.)	.53	.44	.34	.29	.20	.10	.03
	Input HP (Max.)	.79	.67	.55	.50	.35	.20	.07
	OHL Output Shaft	845	845	845	845	699	699	700
50	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	548	632	646	637	647	627	554
	Output HP (Max.)	.44	.35	.24	.17	.12	.06	.02
	Input HP (Max.)	.68	.58	.41	.33	.23	.12	.04
	OHL Output Shaft	845	845	845	845	725	727	735
60	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	499	496	491	459	459	478	465
	Output HP (Max.)	.33	.23	.15	.10	.07	.04	.01
	Input HP (Max.)	.55	.40	.28	.21	.15	.09	.03
	OHL Output Shaft	845	860	860	863	743	741	742

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-44—G1-45
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## DIMENSIONS

### EDGE TIGEAR Size 200

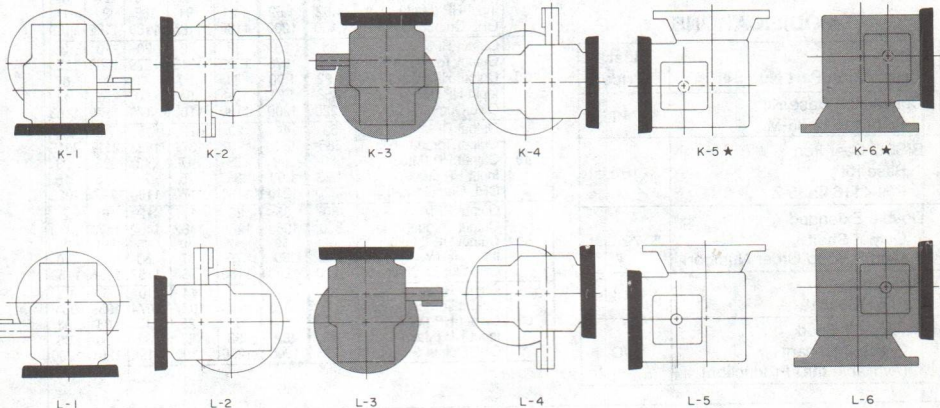


## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43





# DODGE TIGEAR Reducer Size 262

C-face, Hollow Bore Input

## ORDER INFORMATION

List Price \$760	Discount for Unit & Options D-46a
56/140 Wt. 51 lbs.	
180 Wt. 58 lbs.	

## ORDER NUMBERS

Ratio	Frame 56C	
15	MR94668	MR94668L1
20	MR94669	MR94669L1
25	MR94876	MR94876L1
30	MR94650	MR94650L1
40	MR94619	MR94619L1
50	MR94620	MR94620L1
60	MR94621	MR94621L1
Ratio	Frame 140TC	
7.5	MR94923	MR94923L1
10	MR94667	MR94667L1
12.67	MR94913	MR94913L1
15	MR94622	MR94622L1
18	MR94914	MR94914L1
20	MR94623	MR94623L1
25	MR94877	MR94877L1
30	MR94624	MR94624L1
40	MR94651	MR94651L1
Ratio	Frame 180TC	
5	MR94625	MR94625L1
7.5	MR94924	MR94924L1
10	MR94626	MR94626L1

## MODIFICATIONS

Description/Part Number	List Price
Conversion Base Kit P/N 411642-35-M	\$ 74 List
BISS Cast Iron Base Kit P/N 411642-35-Z	\$116 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 72 List
Riser Block P/N RB94919	\$ 94 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

## RATING TABLE

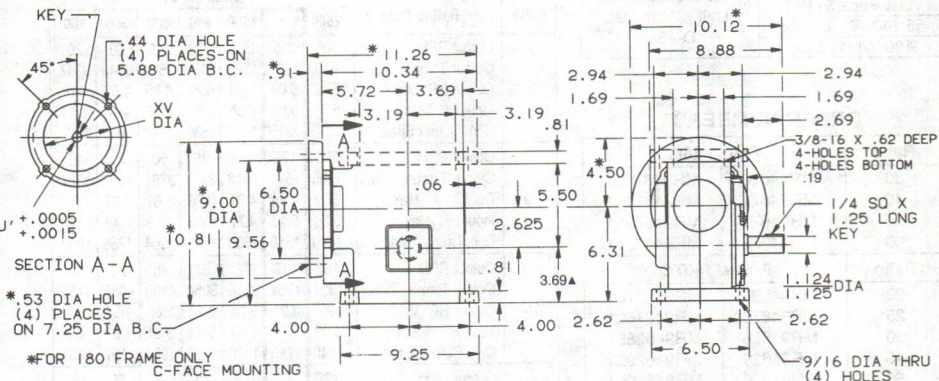
Ratio	Rating Data	RPM INPUT							
		2500	1750	1160	860	600	300	100	
5	Output RPM	500	350	232	172	120	60	20	
	Output Torque, in.lb.	533	771	1094	1321	1423	1413	1381	
	Output HP (Max.)	4.63	4.28	4.03	3.61	2.71	1.35	.44	
	Input HP (Max.)	5.00	4.62	4.37	3.95	3.00	1.54	.51	
	OHL Output Shaft	690	740	785	830	939	1159	1162	
7.5	Output RPM	333	233	155	115	80	40	13	
	Output Torque, in.lb.	627	896	1164	1182	1164	1138	1120	
	Output HP (Max.)	3.32	3.32	2.86	2.15	1.48	.723	.237	
	Input HP (Max.)	3.66	3.67	3.18	2.42	1.70	.862	.293	
	OHL Output Shaft	753	716	742	236	1033	1168	1170	
10	Output RPM	250	175	116	86	60	30	10	
	Output Torque, in.lb.	763	951	1175	1338	1833	2049	2224	
	Output HP (Max.)	3.03	2.64	2.16	1.83	1.75	.98	.35	
	Input HP (Max.)	3.38	3.00	2.47	2.13	2.05	1.20	.45	
	OHL Output Shaft	835	900	1000	1120	1099	953	520	
12.67	Output RPM	197	138	92	68	47	24	8	
	Output Torque, in.lb.	895	1047	1247	1429	1682	1924	2031	
	Output HP (Max.)	2.80	2.30	1.81	1.54	1.26	.723	.254	
	Input HP (Max.)	3.16	2.61	2.10	1.80	1.49	.881	.326	
	OHL Output Shaft	685	539	147	54	256	0	0	
15	Output RPM	167	117	77	57	40	20	7	
	Output Torque, in.lb.	885	1029	1246	1432	1939	2147	2041	
	Output HP (Max.)	2.34	1.91	1.53	1.30	1.23	.68	.22	
	Input HP (Max.)	2.70	2.24	1.84	1.60	1.54	.90	.30	
	OHL Output Shaft	940	1030	1130	1170	1064	669	972	
18	Output RPM	139	97	64	48	33	17	6	
	Output Torque, in.lb.	916	1071	1280	1445	1526	1551	1523	
	Output HP (Max.)	2.02	1.65	1.31	1.10	.808	.410	.134	
	Input HP (Max.)	2.34	1.95	1.57	1.35	1.01	.536	.187	
	OHL Output Shaft	831	888	958	758	607	558	605	
20	Output RPM	125	87	58	43	30	15	5	
	Output Torque, in.lb.	949	1065	1325	1526	1529	1449	1342	
	Output HP (Max.)	1.88	1.48	1.22	1.04	.73	.35	.11	
	Input HP (Max.)	2.21	1.77	1.50	1.29	.93	.47	.15	
	OHL Output Shaft	1020	1180	1180	1170	1148	1158	1170	
25	Output RPM	100	70	46	34	24	12	4	
	Output Torque, in.lb.	937	1098	1282	1271	1256	1230	1161	
	Output HP (Max.)	1.49	1.22	.94	.69	.48	.23	.07	
	Input HP (Max.)	1.82	1.52	1.21	.91	.65	.34	.11	
	OHL Output Shaft	1130	1200	1180	1185	1180	1182	1189	
30	Output RPM	83	58	39	29	20	10	3	
	Output Torque, in.lb.	925	1075	1320	1315	1279	1269	1226	
	Output HP (Max.)	1.22	1.00	.81	.60	.41	.201	.07	
	Input HP (Max.)	1.58	1.31	1.11	.84	.60	.32	.11	
	OHL Output Shaft	1220	1200	1180	1180	1178	1179	1183	
40	Output RPM	63	44	29	22	15	7.5	2.5	
	Output Torque, in.lb.	885	995	1197	1371	1823	2117	2018	
	Output HP (Max.)	.88	.69	.55	.47	.43	.25	.08	
	Input HP (Max.)	1.23	1.00	.83	.75	.71	.46	.16	
	OHL Output Shaft	1220	1210	1190	1170	1104	792	1022	
50	Output RPM	50	35	23	17	12	6	2	
	Output Torque, in.lb.	850	1053	1269	1452	1462	1474	1449	
	Output HP (Max.)	.67	.59	.47	.40	.28	.14	.05	
	Input HP (Max.)	1.00	.90	.75	.67	.50	.28	.10	
	OHL Output Shaft	1220	1200	1180	1160	1157	1156	1159	
60	Output RPM	42	29	19	14	10	5	1.5	
	Output Torque, in.lb.	949	1095	1113	1077	1074	1039	984	
	Output HP (Max.)	.63	.51	.35	.25	.17	.08	.03	
	Input HP (Max.)	.96	.82	.58	.28	.32	.18	.06	
	OHL Output Shaft	1215	1200	1200	1190	1198	1201	1206	

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-44—G1-45
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G1-22

# RODGE TIGEAR Size 262

## DIMENSIONS



▲ +.000/- .031 ON SHAFT HEIGHT

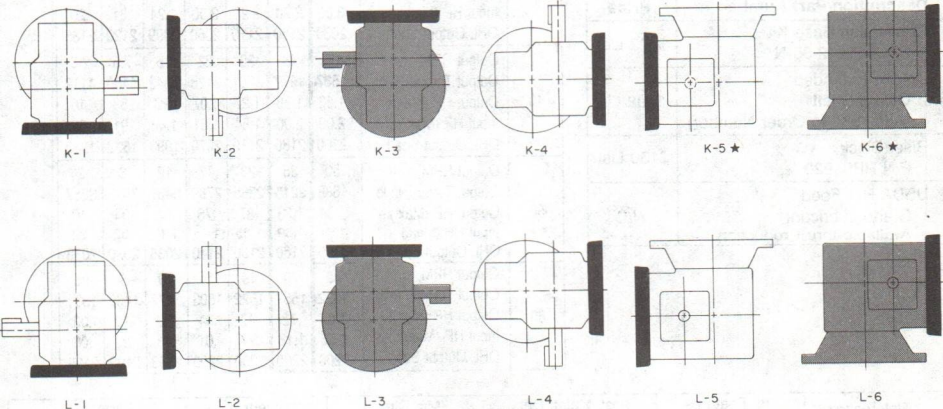
MOTOR FRAME	U'	XV	KEY
48Y	.6255	4.50	3/16 SQ X 1.50 LONG KEY
55C	.8755	4.50	3/16 SQ X 1.50 LONG KEY
140TC	.8755	4.50	3/16 SQ X 1.50 LONG KEY
160ATC	1.1255	8.50	1/4 SQ X 2.00 LONG KEY

## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size 350

C-face, Hollow Bore Input

## ORDER INFORMATION

List Price \$1196	Discount for Unit & Options
56/140 Wt. 110 lbs.	D-46a
180 Wt. 117 lbs.	

## ORDER NUMBERS

Ratio	Frame 56C	
30	MR94670	MR94670L1
40	MR94671	MR94671L1
50	MR94672	MR94672L1
60	MR94673	MR94673L1
Ratio	Frame 140TC	
20	MR94627	MR94627L1
25	MR94878	MR94878L1
30	MR94628	MR94628L1
40	MR94629	MR94629L1
50	MR94630	MR94630L1
Ratio	Frame 180TC	
5	MR94632	MR94632L1
10	MR94633	MR94633L1
15	MR94634	MR94634L1
20	MR94653	MR94653L1
25	MR94903	MR94903L1

## MODIFICATIONS

Description/Part Number	List Price
Conversion Base Kit P/N 411642-35-N	\$ 92 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 92 List
Riser Block P/N RB94920	\$130 List
USDA H-1 Food Grade Lubricant Available thru Production	N/C

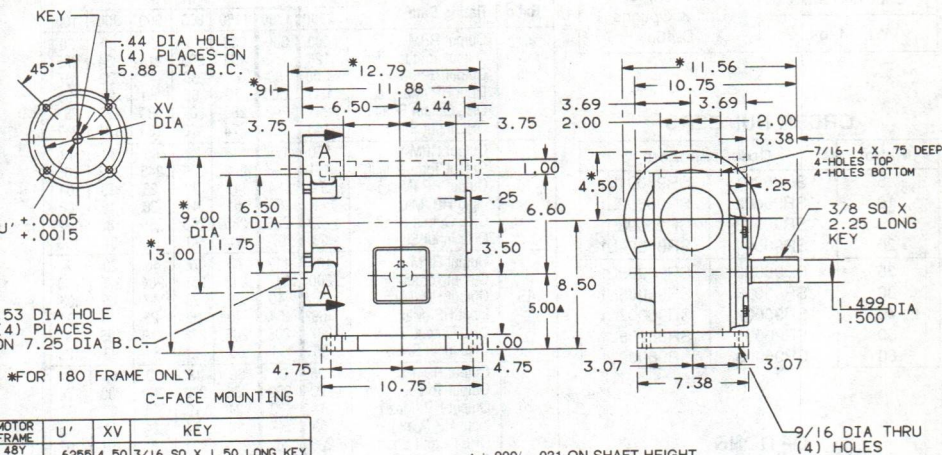
## RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	810	1097	1583	1931	2548	3843	3757
	Output HP (Max.)	6.43	6.09	5.83	5.27	4.85	3.66	1.19
	Input HP (Max.)	6.95	6.61	6.35	5.79	5.36	4.18	1.43
	OHL Output Shaft	1210	1310	1420	1530	1492	1875	1992
10	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	1265	1671	2318	2901	3791	4357	4384
	Output HP (Max.)	5.02	4.64	4.27	3.96	3.61	2.08	.70
	Input HP (Max.)	5.50	5.10	4.71	4.45	4.19	2.49	.88
	OHL Output Shaft	1440	1550	1680	1810	1964	1858	1849
15	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	1337	1751	2636	3054	4196	4853	4755
	Output HP (Max.)	3.54	3.25	3.24	2.78	2.66	1.54	.50
	Input HP (Max.)	4.08	3.79	3.78	3.32	3.24	1.97	.69
	OHL Output Shaft	1640	1780	1950	2020	1908	1697	1732
20	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	1416	1884	2596	3109	4029	4817	4896
	Output HP (Max.)	2.81	2.60	2.39	2.12	1.92	1.15	.39
	Input HP (Max.)	3.36	3.15	3.00	2.67	2.49	1.57	.59
	OHL Output Shaft	1700	2015	2090	2080	1955	1711	1682
25	Output RPM	100	70	46	34	24	12	4
	Output Torque, in.lb.	1642	2197	2783	2798	2708	2684	2533
	Output HP (Max.)	2.61	2.44	2.05	1.53	1.03	.51	.16
	Input HP (Max.)	3.16	3.00	2.56	2.00	1.37	.73	.25
	OHL Output Shaft	1950	2100	2110	2110	2109	2110	2123
30	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	1702	2325	2793	3190	2821	2570	2381
	Output HP (Max.)	2.25	2.14	1.71	1.45	.90	.41	.13
	Input HP (Max.)	3.00	2.70	2.23	2.00	1.24	.61	.20
	OHL Output Shaft	2030	2150	2110	2060	2099	2120	2135
40	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	1537	1977	2761	3128	3843	4460	4112
	Output HP (Max.)	1.53	1.38	1.27	1.07	.92	.53	.16
	Input HP (Max.)	2.09	2.00	1.84	1.61	1.46	.91	.32
	OHL Output Shaft	2200	2180	2110	2070	1993	1832	1933
50	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	1688	2215	2365	2769	3465	3523	3257
	Output HP (Max.)	1.34	1.23	.87	.76	.66	.34	.10
	Input HP (Max.)	1.91	1.80	1.35	1.23	1.13	.62	.22
	OHL Output Shaft	2195	2160	2130	2110	2036	2030	2058
60	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	1622	1557	1522	1503	1472	1469	1331
	Output HP (Max.)	1.07	.72	.47	.34	.23	.12	.03
	Input HP (Max.)	1.58	1.13	.77	.61	.43	.23	.08
	OHL Output Shaft	2200	2200	2200	2200	2193	2193	2199

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-44—G1-45
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# EDGE TIGEAR Size 350

## DIMENSIONS



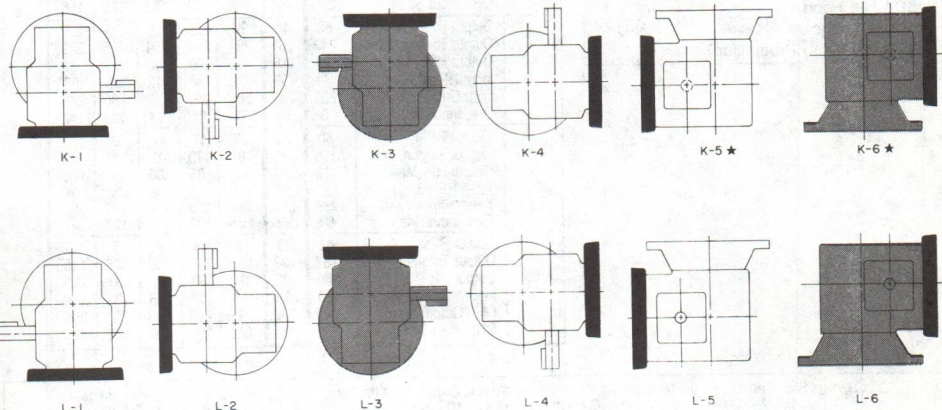
MOTOR FRAME	U'	XV	KEY
48Y	.6255	4.50	3/16 SQ X 1.50 LONG KEY
56C	.8755	4.50	3/16 SQ X 1.50 LONG KEY
70TC	.8755	4.50	3/16 SQ X 1.50 LONG KEY
90ATC	1.1255	8.50	1/4 SQ X 2.00 LONG KEY

## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions NOT recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size S150

## Separate Reducer

### ORDER INFORMATION

List Price \$370	Discount for Unit & Options D-46a
Wt. 14 lbs.	

### ORDER NUMBERS

Ratio	Order Numbers	
5	SR96001	SR96001L1
10	SR96002	SR96002L1
15	SR96003	SR96003L1
20	SR96004	SR96004L1
25	SR96005	SR96005L1
30	SR96006	SR96006L1
40	SR96007	SR96007L1
50	SR96008	SR96008L1
60	SR96009	SR96009L1

### OPTIONS

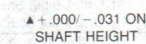
Description/Part Number	List Price
C-face Adaptor Kit 56C P/N CA96055	\$100 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 60 List
Riser Block P/N RB94915	\$ 30 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

### RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	126	152	184	200	215	234	235
	Output HP (Max.)	1.00	.85	.68	.55	.41	.22	.07
	Input HP (Max.)	1.17	1.00	.79	.65	.50	.28	.09
	OHL Output Shaft	294	292	289	287	285	283	283
	OHL Input Shaft	143	158	174	178	183	194	217
10	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	181	195	222	234	245	282	288
	Output HP (Max.)	.72	.54	.41	.32	.23	.13	.04
	Input HP (Max.)	.88	.68	.51	.41	.30	.18	.06
	OHL Output Shaft	289	288	285	283	266	188	172
	OHL Input Shaft	98	97	91	90	91	87	106
15	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	200	217	242	255	264	275	258
	Output HP (Max.)	.53	.40	.30	.23	.17	.09	.03
	Input HP (Max.)	.69	.54	.40	.32	.25	.13	.04
	OHL Output Shaft	287	285	266	238	219	195	231
	OHL Input Shaft	95	94	86	83	84	93	129
20	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	220	239	256	272	289	283	278
	Output HP (Max.)	.44	.33	.24	.19	.14	.07	.02
	Input HP (Max.)	.60	.47	.34	.27	.21	.11	.035
	OHL Output Shaft	285	283	255	221	166	191	207
	OHL Input Shaft	68	79	76	71	67	89	122
25	Output RPM	100	70	46	34	24	12	4
	Output Torque, in.lb.	220	220	216	215	212	208	204
	Output HP (Max.)	.35	.24	.16	.12	.08	.04	.01
	Input HP (Max.)	.51	.37	.25	.19	.13	.07	.02
	OHL Output Shaft	285	285	285	285	285	286	286
	OHL Input Shaft	75	83	94	102	109	122	145
30	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	216	235	250	264	277	273	260
	Output HP (Max.)	.29	.22	.15	.12	.09	.04	.014
	Input HP (Max.)	.45	.35	.26	.21	.16	.08	.03
	OHL Output Shaft	285	283	281	251	213	225	261
	OHL Input Shaft	54	105	105	102	102	125	156
40	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	243	261	254	254	254	245	232
	Output HP (Max.)	.24	.18	.12	.09	.06	.03	.01
	Input HP (Max.)	.41	.33	.22	.16	.12	.06	.02
	OHL Output Shaft	282	248	261	261	262	280	283
	OHL Input Shaft	0	58	77	84	93	113	140
50	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	188	186	181	179	181	171	172
	Output HP (Max.)	.15	.10	.07	.05	.03	.02	.005
	Input HP (Max.)	.29	.21	.14	.11	.08	.04	.01
	OHL Output Shaft	288	288	289	289	289	290	290
	OHL Input Shaft	87	93	101	107	112	127	147
60	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	137	137	132	130	130	125	118
	Output HP (Max.)	.09	.06	.04	.03	.02	.01	.003
	Input HP (Max.)	.20	.14	.10	.07	.05	.03	.008
	OHL Output Shaft	292	292	293	293	293	293	294
	OHL Input Shaft	108	113	122	127	133	147	169

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	C-Adapt. Dim. p. G1-40	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-46—G1-47
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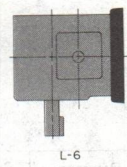
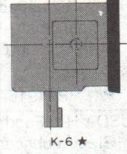
## DIMENSIONS



**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\* Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size S133

## Separate Reducer

### ORDER INFORMATION

List Price \$400	Discount for Unit & Options
Wt. 19 lbs.	D-46a

### ORDER NUMBERS

Ratio	Order Numbers	
5	SR96010	SR96010L1
10	SR96011	SR96011L1
15	SR96012	SR96012L1
20	SR96013	SR96013L1
25	SR96014	SR96014L1
30	SR96015	SR96015L1
40	SR96016	SR96016L1
50	SR96017	SR96017L1
60	SR96018	SR96018L1

### OPTIONS

Description/Part Number	List Price
C-face Adaptor Kit 56C P/N CA96055	\$100 List
Conversion Base Kit P/N 411642-35-L	\$ 12 List
BISSC Cast Iron Base Kit P/N 411642-35-W	\$ 84 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 60 List
Riser Block P/N RB94916	\$ 36 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

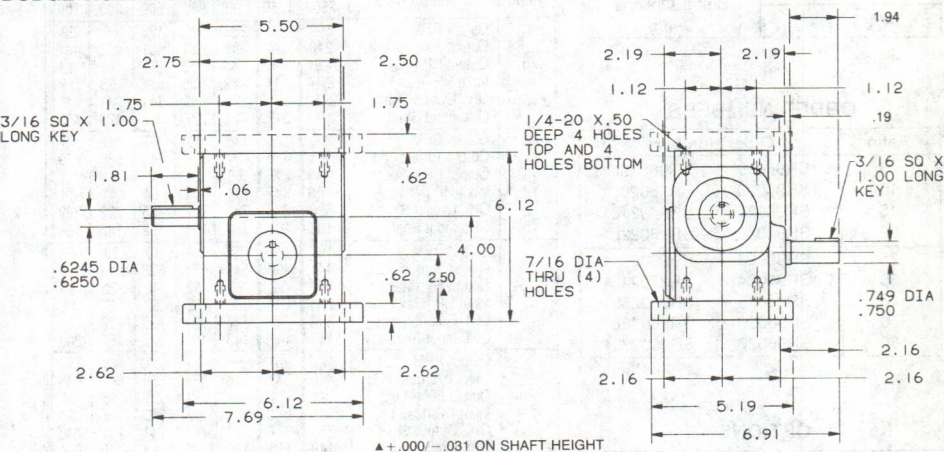
### RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	176	199	222	248	247	241	237
	Output HP (Max.)	1.39	1.10	.82	.68	.47	.23	.08
	Input HP (Max.)	1.59	1.26	.95	.80	.56	.28	.09
	OHL Output Shaft	500	545	625	680	773	804	804
	OHL Input Shaft	130	134	139	141	147	158	176
10	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	252	282	308	336	349	403	431
	Output HP (Max.)	1.00	.78	.57	.46	.33	.15	.07
	Input HP (Max.)	1.19	.95	.70	.57	.42	.19	.09
	OHL Output Shaft	600	660	760	810	799	804	793
	OHL Input Shaft	91	90	90	91	90	87	99
15	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	276	313	323	360	381	378	377
	Output HP (Max.)	.73	.58	.40	.33	.24	.12	.04
	Input HP (Max.)	.92	.75	.53	.43	.33	.17	.06
	OHL Output Shaft	690	760	810	810	797	795	797
	OHL Input Shaft	26	83	113	98	96	118	153
20	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	265	307	368	396	429	420	397
	Output HP (Max.)	.53	.43	.34	.27	.20	.10	.03
	Input HP (Max.)	.70	.59	.47	.38	.30	.16	.05
	OHL Output Shaft	760	810	810	810	793	794	795
	OHL Input Shaft	0	0	88	80	69	95	144
25	Output RPM	100	70	46	34	24	12	4
	Output Torque, in.lb.	253	288	297	292	291	272	260
	Output HP (Max.)	.40	.32	.22	.16	.11	.05	.02
	Input HP (Max.)	.55	.44	.31	.22	.17	.08	.03
	OHL Output Shaft	810	810	810	810	802	803	803
	OHL Input Shaft	40	20	13	15	15	25	30
30	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	269	295	349	366	410	402	386
	Output HP (Max.)	.36	.27	.21	.17	.13	.06	.02
	Input HP (Max.)	.54	.43	.35	.28	.22	.12	.04
	OHL Output Shaft	810	810	810	810	794	795	796
	OHL Input Shaft	0	20	136	140	138	154	173
40	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	268	314	383	387	383	376	355
	Output HP (Max.)	.27	.22	.18	.13	.09	.05	.01
	Input HP (Max.)	.44	.37	.30	.25	.17	.09	.03
	OHL Output Shaft	810	810	810	810	796	797	798
	OHL Input Shaft	0	13	61	64	75	98	143
50	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	283	279	272	267	250	267	271
	Output HP (Max.)	.22	.16	.10	.07	.05	.03	.01
	Input HP (Max.)	.39	.29	.19	.15	.10	.06	.02
	OHL Output Shaft	810	810	810	810	804	803	803
	OHL Input Shaft	51	100	108	114	123	131	149
60	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	210	204	197	194	189	170	147
	Output HP (Max.)	.14	.09	.06	.04	.03	.01	.004
	Input HP (Max.)	.27	.19	.13	.10	.07	.04	.01
	OHL Output Shaft	806	806	806	806	806	807	808
	OHL Input Shaft	88	94	100	105	110	123	144

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	C-Adapt. Dim. p. G1-40	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-46—G1-47
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## DIMENSIONS

### DODGE TIGEAR Size S133

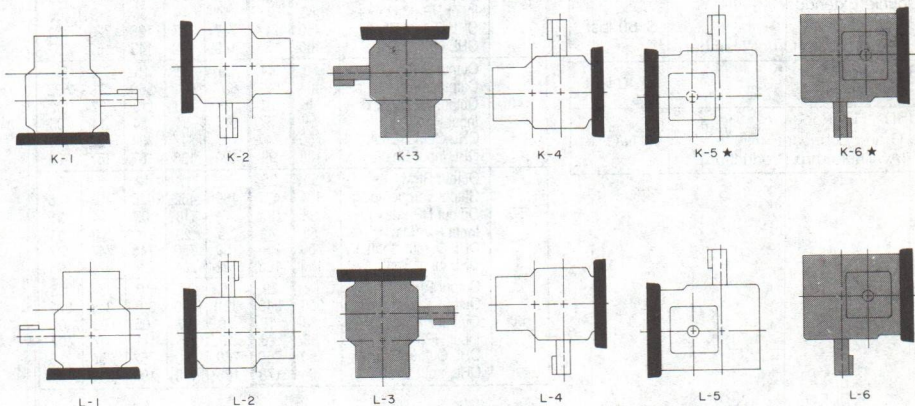


## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size S175

## Separate Reducer

### ORDER INFORMATION

List Price \$450	Discount for Unit & Options D-46a
Wt. 25 lbs.	

### ORDER NUMBERS

Ratio	Order Numbers	
5	SR96019	SR96019L1
10	SR96020	SR96020L1
15	SR96021	SR96021L1
20	SR96022	SR96022L1
25	SR96023	SR96023L1
30	SR96024	SR96024L1
40	SR96025	SR96025L1
50	SR96026	SR96026L1
60	SR96027	SR96027L1

### OPTIONS

Description/Part Number	List Price
C-face Adaptor Kit 56/140 Fr. P/N CA96056	\$100 List
BISS Cast Iron Base Kit P/N 411642-35-X	\$ 86 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 60 List
Riser Block P/N RB94917	\$ 40 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

### RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	240	344	388	434	481	482	491
	Output HP (Max.)	1.91	1.91	1.43	1.18	.92	.46	.16
	Input HP (Max.)	2.14	2.14	1.62	1.36	1.06	.55	.19
	OHL Output Shaft	520	565	625	685	741	741	740
10	OHL Input Shaft	190	218	255	277	313	423	473
	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	363	436	477	504	547	680	679
	Output HP (Max.)	1.44	1.21	.88	.69	.52	.32	.11
	Input HP (Max.)	1.68	1.42	1.05	.84	.64	.41	.14
15	OHL Output Shaft	630	695	747	747	735	722	722
	OHL Input Shaft	188	192	192	191	193	143	199
	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	441	496	541	571	622	614	595
	Output HP (Max.)	1.17	.92	.66	.52	.40	.20	.06
20	Input HP (Max.)	1.41	1.13	.85	.68	.52	.27	.09
	OHL Output Shaft	690	747	747	747	728	729	731
	OHL Input Shaft	149	147	145	133	128	162	200
	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	456	530	576	479	659	667	645
25	Output HP (Max.)	.91	.74	.53	.33	.31	.16	.05
	Input HP (Max.)	1.15	1.00	.71	.45	.45	.24	.08
	OHL Output Shaft	750	747	747	747	741	741	740
	OHL Input Shaft	149	143	133	119	114	140	204
	Output RPM	100	70	46	34	24	12	4
30	Output Torque, in.lb.	464	513	509	508	496	485	480
	Output HP (Max.)	.74	.57	.38	.28	.19	.09	.03
	Input HP (Max.)	1.00	.78	.53	.40	.29	.15	.05
	OHL Output Shaft	750	747	747	747	735	722	722
	OHL Input Shaft	123	131	148	160	180	203	237
40	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	437	521	573	609	635	658	590
	Output HP (Max.)	.58	.48	.35	.28	.20	.10	.03
	Input HP (Max.)	.83	.71	.54	.44	.33	.19	.06
	OHL Output Shaft	750	747	747	747	728	729	731
50	OHL Input Shaft	160	153	149	142	143	162	257
	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	464	527	607	591	560	579	592
	Output HP (Max.)	.46	.37	.28	.20	.13	.07	.02
	Input HP (Max.)	.69	.57	.45	.34	.24	.14	.05
60	OHL Output Shaft	750	747	747	747	734	732	731
	OHL Input Shaft	108	99	120	136	167	187	232
	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	474	477	469	462	425	463	406
	Output HP (Max.)	.38	.27	.17	.13	.08	.04	.01
60	Input HP (Max.)	.58	.43	.29	.23	.16	.10	.03
	OHL Output Shaft	750	750	750	750	745	742	747
	OHL Input Shaft	150	165	192	201	214	226	274
	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	350	346	321	320	321	348	302
60	Output HP (Max.)	.23	.16	.10	.07	.05	.03	.01
	Input HP (Max.)	.39	.28	.19	.15	.11	.07	.02
	OHL Output Shaft	750	755	760	760	752	750	753
60	OHL Input Shaft	164	173	185	193	199	211	251

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	C-Adapt. Dim. p. G1-40	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-46—G1-47
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\*Countershaft is located on the concealed side of these units.



# DODGE TIGEAR Reducer Size S200

## Separate Reducer

### ORDER INFORMATION

List Price \$520	Discount for Unit & Options D-46a
Wt. 28 lbs.	

### ORDER NUMBERS

Ratio	Order Numbers	
5	SR96028	SR96028L1
10	SR96029	SR96029L1
15	SR96030	SR96030L1
20	SR96031	SR96031L1
25	SR96032	SR96032L1
30	SR96033	SR96033L1
40	SR96034	SR96034L1
50	SR96035	SR96035L1
60	SR96036	SR96036L1

### OPTIONS

Description/Part Number	List Price
C-face Adaptor Kit 56/140 Fr. P/N CA96056	\$100 List
BISSC Cast Iron Base Kit P/N 411642-35-Y	\$112 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 60 List
Riser Block P/N RB94918	\$ 50 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

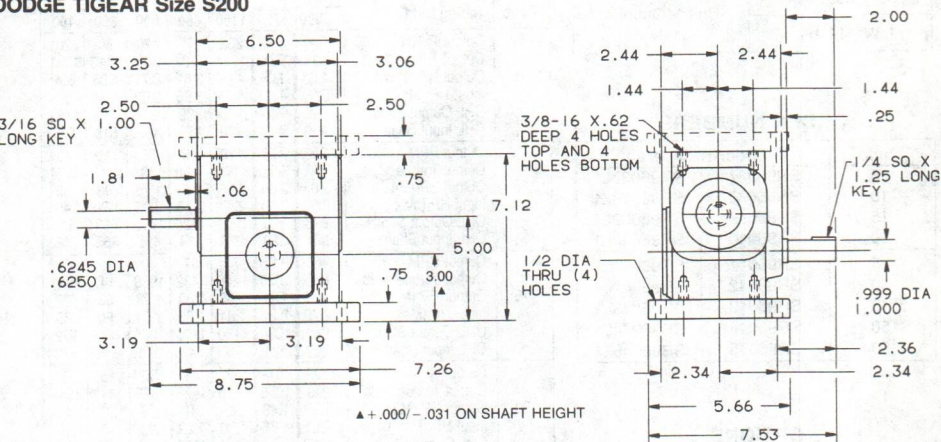
### RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	303	439	610	613	600	603	589
	Output HP (Max.)	2.41	2.44	2.25	1.67	1.14	.57	.19
	Input HP (Max.)	2.65	2.68	2.48	1.87	1.29	.67	.22
	OHL Output Shaft	495	522	560	630	682	682	683
	OHL Input Shaft	192	199	233	269	323	434	485
10	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	436	588	695	743	812	918	983
	Output HP (Max.)	1.73	1.62	1.28	1.02	.77	.44	.16
	Input HP (Max.)	2.00	1.88	1.51	1.21	.93	.55	.20
	OHL Output Shaft	595	630	710	800	659	644	627
	OHL Input Shaft	177	176	169	162	150	136	160
15	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	467	622	737	829	895	898	872
	Output HP (Max.)	1.24	1.15	.91	.75	.57	.29	.09
	Input HP (Max.)	1.50	1.39	1.13	.95	.73	.39	.13
	OHL Output Shaft	680	730	830	845	648	647	651
	OHL Input Shaft	163	196	188	185	177	206	268
20	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	521	618	729	824	932	956	901
	Output HP (Max.)	1.03	.86	.67	.56	.44	.23	.07
	Input HP (Max.)	1.30	1.11	.88	.76	.62	.34	.11
	OHL Output Shaft	735	830	845	845	642	636	647
	OHL Input Shaft	0	190	177	170	168	198	312
25	Output RPM	100	70	46	34	24	12	4
	Output Torque, in.lb.	548	639	774	759	745	738	711
	Output HP (Max.)	.87	.71	.57	.41	.28	.14	.05
	Input HP (Max.)	1.12	.91	.78	.59	.42	.22	.07
	OHL Output Shaft	800	845	845	845	667	667	671
	OHL Input Shaft	0	138	191	217	246	293	371
30	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	477	599	697	783	847	840	801
	Output HP (Max.)	.63	.56	.43	.36	.27	.13	.04
	Input HP (Max.)	.89	.79	.65	.56	.43	.25	.08
	OHL Output Shaft	845	850	845	845	654	655	660
	OHL Input Shaft	61	199	239	270	311	365	450
40	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	530	626	748	836	857	855	847
	Output HP (Max.)	.53	.44	.34	.29	.20	.10	.03
	Input HP (Max.)	.79	.67	.55	.50	.35	.20	.07
	OHL Output Shaft	845	845	845	845	699	699	700
	OHL Input Shaft	0	162	182	214	260	344	
50	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	548	632	646	637	647	627	554
	Output HP (Max.)	.44	.35	.24	.17	.12	.06	.02
	Input HP (Max.)	.68	.58	.41	.33	.23	.12	.04
	OHL Output Shaft	845	845	845	845	725	727	735
	OHL Input Shaft	77	198	220	228	247	283	357
60	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	499	496	491	459	459	478	465
	Output HP (Max.)	.33	.23	.15	.10	.07	.04	.01
	Input HP (Max.)	.55	.40	.28	.21	.15	.09	.03
	OHL Output Shaft	845	860	860	863	743	741	742
	OHL Input Shaft	209	245	293	310	333	358	416

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	C-Adapt. Dim. p. G1-40	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-46—G1-47
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## DIMENSIONS

### RODGE TIGEAR Size S200

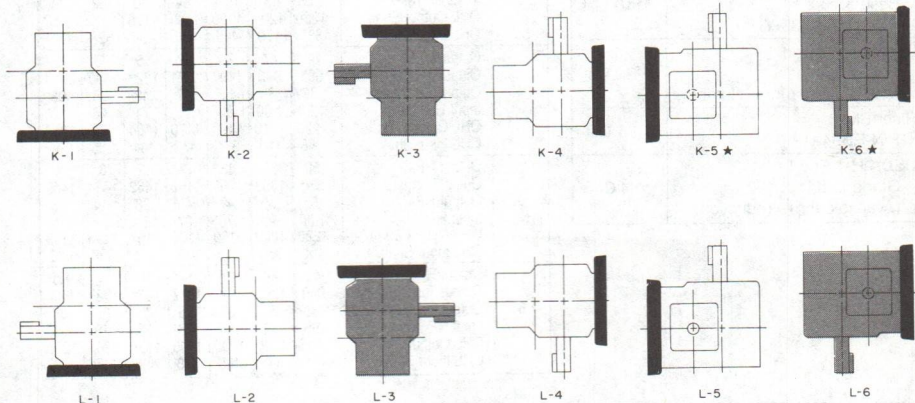


## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size S262

## Separate Reducer

### ORDER INFORMATION

List Price \$700	Discount for Unit & Options
Wt. 49 lbs.	D-46a

### ORDER NUMBERS

Ratio	Order Numbers	
5	SR96037	SR96037L1
10	SR96038	SR96038L1
15	SR96039	SR96039L1
20	SR96040	SR96040L1
25	SR96041	SR96041L1
30	SR96042	SR96042L1
40	SR96043	SR96043L1
50	SR96044	SR96044L1
60	SR96045	SR96045L1

### OPTIONS

Description/Part Number	List Price
C-face Adaptor Kit 56/140 Fr. P/N CA96057 180 Fr. P/N CA96059	\$140 List \$270 List
Conversion Base Kit P/N 411642-35-M	\$ 74 List
BISSC Cast Iron Base Kit P/N 411642-35-Y	\$116 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 72 List
Riser Block P/N RB94919	\$ 94 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

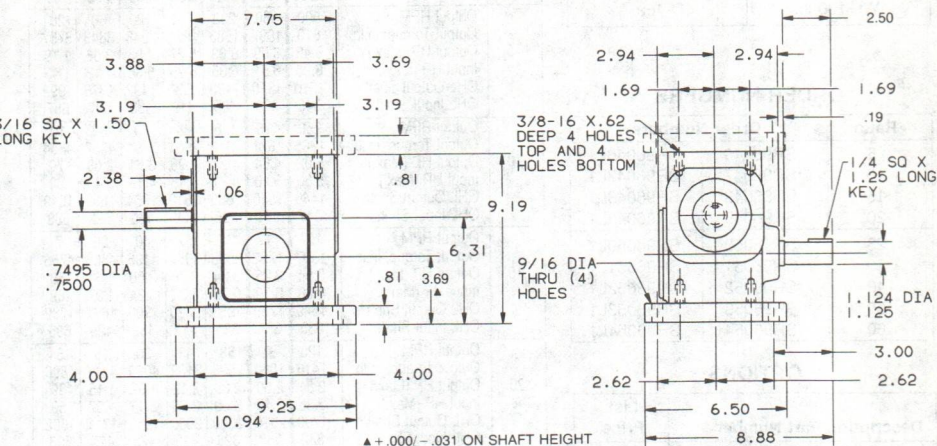
### RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	533	771	1094	1321	1423	1413	1381
	Output HP (Max.)	4.63	4.28	4.03	3.61	2.71	1.35	.44
	Input HP (Max.)	5.00	4.62	4.37	3.95	3.00	1.54	.51
	OHL Output Shaft	690	740	785	830	938	1159	1162
10	OHL Input Shaft	400	442	460	471	486	518	575
	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	763	951	1175	1338	1833	2049	2224
	Output HP (Max.)	3.03	2.64	2.16	1.83	1.75	.98	.35
	Input HP (Max.)	3.38	3.00	2.47	2.13	2.05	1.20	.45
15	OHL Output Shaft	835	900	1000	1120	1099	953	520
	OHL Input Shaft	391	429	273	434	487	455	398
	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	885	1029	1246	1432	1939	2147	2041
	Output HP (Max.)	2.34	1.91	1.53	1.30	1.23	.68	.22
20	Input HP (Max.)	2.70	2.24	1.84	1.60	1.54	.90	.30
	OHL Output Shaft	940	1030	1130	1170	1064	669	972
	OHL Input Shaft	367	231	73	241	375	346	523
	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	949	1065	1325	1526	1529	1449	1342
25	Output HP (Max.)	1.88	1.48	1.22	1.04	.73	.35	.11
	Input HP (Max.)	2.21	1.77	1.50	1.29	.93	.47	.15
	OHL Output Shaft	1020	1180	1180	1170	1148	1158	1170
	OHL Input Shaft	279	162	40	18	38	70	117
	Output RPM	100	70	46	34	24	12	4
30	Output Torque, in.lb.	937	1098	1282	1271	1256	1230	1161
	Output HP (Max.)	1.49	1.22	.94	.69	.48	.23	.07
	Input HP (Max.)	1.82	1.52	1.21	.91	.65	.34	.11
	OHL Output Shaft	1130	1200	1180	1185	1180	1182	1189
	OHL Input Shaft	398	351	367	363	375	384	413
40	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	925	1075	1320	1315	1279	1269	1226
	Output HP (Max.)	1.22	1.00	.81	.60	.41	.201	.07
	Input HP (Max.)	1.58	1.31	1.11	.84	.60	.32	.11
	OHL Output Shaft	1220	1200	1180	1180	1178	1179	1183
50	OHL Input Shaft	387	170	465	478	494	528	585
	Output RPM	63	44	29	22	15	75	2.5
	Output Torque, in.lb.	885	995	1197	1371	1823	2117	2016
	Output HP (Max.)	.88	.69	.55	.47	.43	.25	.08
	Input HP (Max.)	1.23	1.00	.83	.75	.71	.46	.16
60	OHL Output Shaft	1220	1210	1190	1170	1104	792	1022
	OHL Input Shaft	288	143	374	478	444	385	584
	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	850	1053	1269	1452	1462	1474	1449
	Output HP (Max.)	.67	.59	.47	.40	.28	.14	.05
60	Input HP (Max.)	1.00	.90	.75	.67	.50	.28	.10
	OHL Output Shaft	1220	1200	1180	1160	1157	1156	1159
	OHL Input Shaft	406	356	325	469	494	528	585
	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	949	1095	1113	1077	1074	1039	984
60	Output HP (Max.)	.63	.51	.35	.25	.17	.08	.03
	Input HP (Max.)	.96	.82	.58	.28	.32	.18	.06
	OHL Output Shaft	1215	1200	1200	1190	1198	1201	1206
	OHL Input Shaft	411	447	465	478	495	528	585

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	C-Adapt. Dim. p. G1-40	Mrt. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-46—G1-47
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## DIMENSIONS

### RODGE TIGEAR Size S262

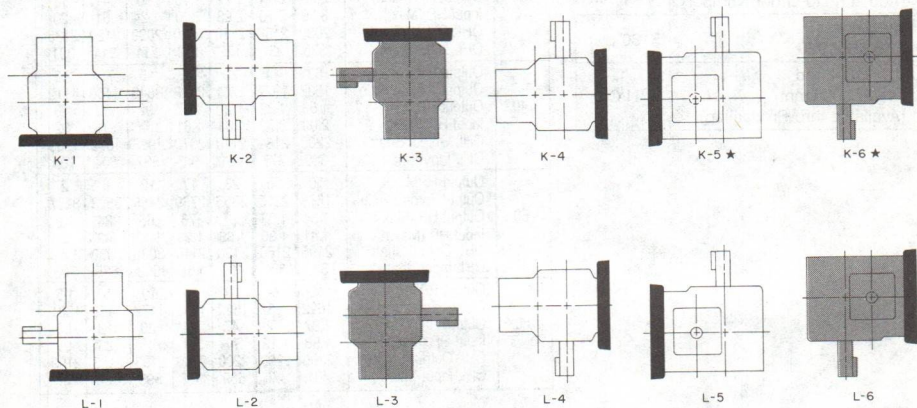


## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions NOT recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.





# DODGE TIGEAR Reducer Size S350

## Separate Reducer

### ORDER INFORMATION

List Price \$1112	Discount for Unit & Options D-46a
Wt. 100 lbs.	

### ORDER NUMBERS

Ratio	Order Numbers	
5	SR96046	SR96046L1
10	SR96047	SR96047L1
15	SR96048	SR96048L1
20	SR96049	SR96049L1
25	SR96050	SR96050L1
30	SR96051	SR96051L1
40	SR96052	SR96052L1
50	SR96053	SR96053L1
60	SR96054	SR96054L1

### OPTIONS

Description/Part Number	List Price
C-face Adaptor Kit 56/140 Fr. P/N CA96058 180 Fr. P/N CA96059	\$190 List \$270 List
Conversion Base Kit P/N 411642-35-N	\$ 92 List
Double Extended Output Shaft (Add "LK" to Order Number)	\$ 92 List
Riser Block P/N RB94920	\$130 List
USDA H-1 Food Grade Lubricant (Available thru Production)	N/C

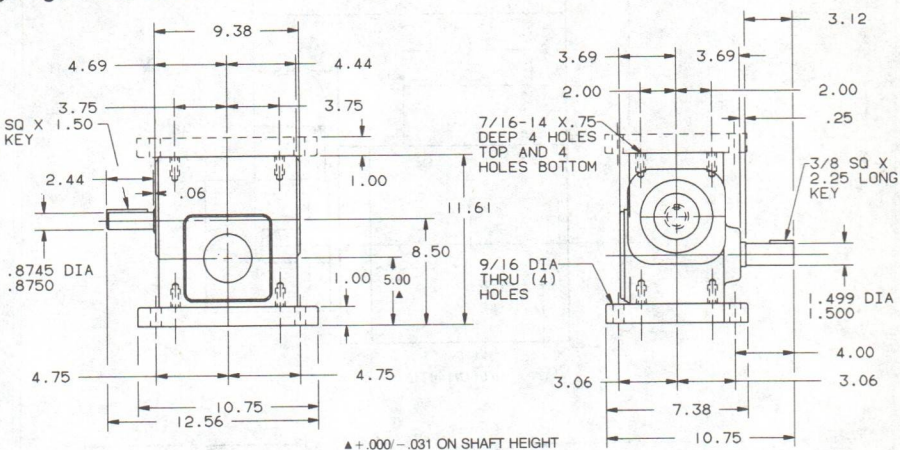
### RATING TABLE

Ratio	Rating Data	RPM INPUT						
		2500	1750	1160	860	600	300	100
5	Output RPM	500	350	232	172	120	60	20
	Output Torque, in.lb.	810	1097	1583	1931	2548	3843	3757
	Output HP (Max.)	6.43	6.09	5.83	5.27	4.85	3.66	1.19
	Input HP (Max.)	6.95	6.61	6.35	5.79	5.36	4.18	1.43
	OHL Output Shaft	1210	1310	1420	1530	1492	1875	1992
	OHL Input Shaft	346	368	400	419	433	587	657
10	Output RPM	250	175	116	86	60	30	10
	Output Torque, in.lb.	1265	1671	2318	2901	3791	4357	4384
	Output HP (Max.)	5.02	4.64	4.27	3.96	3.61	2.08	.70
	Input HP (Max.)	5.50	5.10	4.71	4.45	4.19	2.49	.88
	OHL Output Shaft	1440	1550	1680	1810	1964	1858	1849
	OHL Input Shaft	341	371	395	426	460	622	688
15	Output RPM	167	117	77	57	40	20	7
	Output Torque, in.lb.	1337	1751	2636	3054	4196	4853	4755
	Output HP (Max.)	3.54	3.25	3.24	2.78	2.66	1.54	.50
	Input HP (Max.)	4.08	3.79	3.78	3.32	3.24	1.97	.69
	OHL Output Shaft	1640	1780	1950	2020	1908	1697	1732
	OHL Input Shaft	336	366	385	412	452	625	695
20	Output RPM	125	87	58	43	30	15	5
	Output Torque, in.lb.	1416	1884	2596	3109	4029	4817	4896
	Output HP (Max.)	2.81	2.60	2.39	2.12	1.92	1.15	.39
	Input HP (Max.)	3.36	3.15	3.00	2.67	2.49	1.57	.59
	OHL Output Shaft	1700	2015	2090	2080	1955	1711	1682
	OHL Input Shaft	342	367	396	426	475	625	698
25	Output RPM	100	70	46	34	24	12	4
	Output Torque, in.lb.	1642	2197	2783	2798	2708	2684	2533
	Output HP (Max.)	2.61	2.44	2.05	1.53	1.03	.51	.16
	Input HP (Max.)	3.16	3.00	2.56	2.00	1.37	.73	.25
	OHL Output Shaft	1950	2100	2110	2110	2109	2110	2123
	OHL Input Shaft	333	356	435	517	625	856	1259
30	Output RPM	83	58	39	29	20	10	3
	Output Torque, in.lb.	1702	2325	2793	3190	2821	2570	2381
	Output HP (Max.)	2.25	2.14	1.71	1.45	.90	.41	.13
	Input HP (Max.)	3.00	2.70	2.23	2.00	1.24	.61	.20
	OHL Output Shaft	2030	2150	2110	2060	2099	2120	2135
	OHL Input Shaft	335	377	452	542	657	904	1391
40	Output RPM	63	44	29	22	15	7.5	2.5
	Output Torque, in.lb.	1537	1977	2761	3128	3843	4460	4112
	Output HP (Max.)	1.53	1.38	1.27	1.07	.92	.53	.16
	Input HP (Max.)	2.09	2.00	1.84	1.61	1.46	.91	.32
	OHL Output Shaft	2200	2180	2110	2070	1993	1832	1933
	OHL Input Shaft	339	377	401	442	567	804	1204
50	Output RPM	50	35	23	17	12	6	2
	Output Torque, in.lb.	1688	2215	2365	2769	3465	3523	3257
	Output HP (Max.)	1.34	1.23	.87	.76	.66	.34	.10
	Input HP (Max.)	1.91	1.80	1.35	1.23	1.13	.62	.22
	OHL Output Shaft	2195	2160	2130	2110	2036	2030	2058
	OHL Input Shaft	336	381	407	454	558	635	705
60	Output RPM	42	29	19	14	10	5	1.5
	Output Torque, in.lb.	1622	1557	1522	1503	1472	1469	1331
	Output HP (Max.)	1.07	.72	.47	.34	.23	.12	.03
	Input HP (Max.)	1.58	1.13	.77	.61	.43	.23	.08
	OHL Output Shaft	2200	2200	2200	2200	2193	2193	2199
	OHL Input Shaft	401	476	559	575	595	636	706

References	Std. Features p. G1-4—G1-6	Inst./Maint./Opt. p. G1-41—G1-42	C-Adapt. Dim. p. G1-40	Mtr. Dim. p. G1-38—G1-39	Delivery p. G1-48	Parts p. G1-46—G1-47
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## DIMENSIONS

odge Tigear Size S350

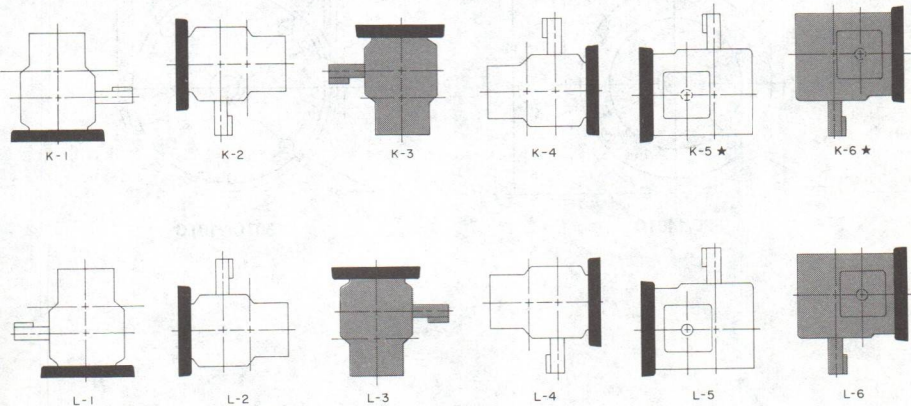


## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions NOT recommended. These should be avoided.

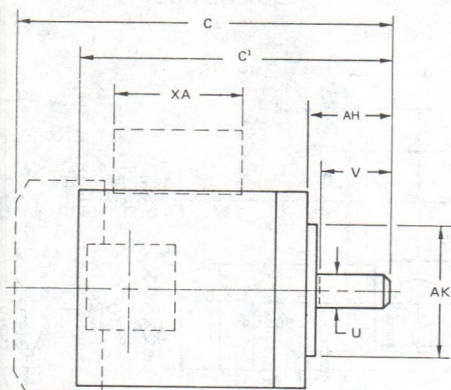
\*Countershaft is located on the concealed side of these units.

For Multimount Foot on Top mounting positions, see page G1-43.

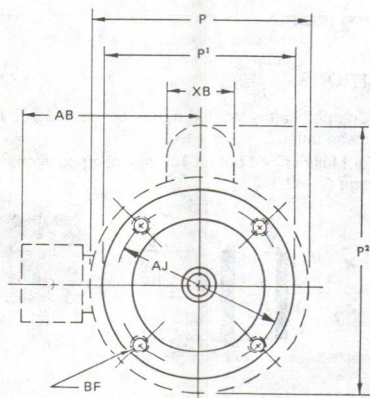




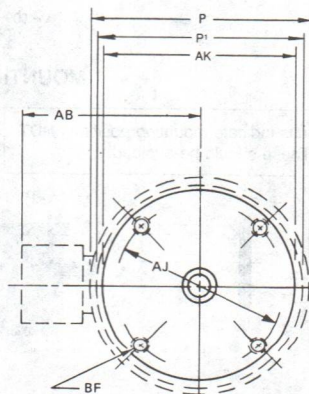
# Electric Motor Dimensions



56C/140TC



56C/140TC



180TC/210TC

## DIMENSIONS ARE LISTED IN INCHES

Frame	C	C <sub>1</sub>	V	P	P <sub>1</sub>	P <sub>2</sub>	AB	XA	XB	AJ	AK	BF	U	AH
AA56C/EA56C	—	9.48	1.88	—	5.62	7.50	—	4.25	1.90	5.88	4.50	3/8-16	.625	2.06
AB56C/EB56C	—	10.23	1.88	—	5.62	7.50	—	4.25	1.90	5.88	4.50	3/8-16	.625	
AC56C/EC56C	—	10.48	1.88	—	5.62	7.50	—	4.25	1.90	5.88	4.50	3/8-16	.625	
AD56C/ED56C	—	10.98	1.88	—	5.62	7.50	—	4.25	1.90	5.88	4.50	3/8-16	.625	
AE56C/EE56C	—	11.48	1.88	—	5.62	7.50	—	4.25	1.90	5.88	4.50	3/8-16	.625	
AF56C/EF56C	—	12.48	1.88	—	5.62	7.50	—	4.25	1.90	5.88	4.50	3/8-16	.625	
BA56C/FA56C	—	10.48	1.88	—	6.45	9.05	—	5.82	2.65	5.88	4.50	3/8-16	.625	
BB56C/FB56C	—	11.48	1.88	—	6.45	9.05	—	5.82	2.65	5.88	4.50	3/8-16	.625	
BC56C/FC56C	—	12.48	1.88	—	6.45	9.05	—	5.82	2.65	5.88	4.50	3/8-16	.625	
BD56C/FD56C	—	13.54	1.88	—	6.45	9.05	—	5.82	2.65	5.88	4.50	3/8-16	.625	
BE56C/FE56C	—	14.54	1.88	—	6.45	9.05	—	5.82	2.65	5.88	4.50	3/8-16	.625	
BF56C/FF56C	—	15.54	1.88	—	6.45	9.05	—	5.82	2.65	5.88	4.50	3/8-16	.625	
BK56C/FK56C	—	11.98	1.88	—	6.45	9.05	—	5.82	2.65	5.88	4.50	3/8-16	.625	
FB56C	11.38	—	1.88	7.28	6.45	9.05	5.78	5.82	2.65	5.88	4.50	3/8-16	.625	
FC56C	12.38	—	1.88	7.28	6.45	9.05	5.78	5.82	2.65	5.88	4.50	3/8-16	.625	
FL56C	12.56	—	1.88	7.28	6.45	9.05	5.78	5.82	2.65	5.88	4.50	3/8-16	.625	
FJ56C	12.81	—	1.88	7.28	6.45	9.05	5.78	5.82	2.65	5.88	4.50	3/8-16	.625	
FD56C	13.44	—	1.88	7.28	6.45	9.05	5.78	5.82	2.65	5.88	4.50	3/8-16	.625	
FE56C	14.44	—	1.88	7.28	6.45	9.05	5.78	5.82	2.65	5.88	4.50	3/8-16	.625	
GA56C(1)	—	10.75	1.88	—	5.62	—	—	—	—	5.88	4.50	3/8-16	.625	
GB56C(1)	—	11.50	1.88	—	5.62	—	—	—	—	5.88	4.50	3/8-16	.625	
GC56C(1)	—	11.75	1.88	—	5.62	—	—	—	—	5.88	4.50	3/8-16	.625	
GD56C(1)	—	12.25	1.88	—	5.62	—	—	—	—	5.88	4.50	3/8-16	.625	
GE56C(1)	—	12.75	1.88	—	5.62	—	—	—	—	5.88	4.50	3/8-16	.625	
GF56C(1)	—	13.75	1.88	—	5.62	—	—	—	—	5.88	4.50	3/8-16	.625	
GH56C(1)	—	13.25	1.88	—	5.62	—	—	—	—	5.88	4.50	3/8-16	.625	
K56C(2)	12.38	10.12	1.88	7.28	6.45	—	4.81	—	—	5.88	4.50	3/8-16	.625	
L56C(2)	12.88	10.62	1.88	7.28	6.45	—	4.81	—	—	5.88	4.50	3/8-16	.625	
M56C(2)	13.50	11.25	1.88	7.28	6.45	—	4.81	—	—	5.88	4.50	3/8-16	.625	
P56C(2)	14.25	12.00	1.88	7.28	6.45	—	4.81	—	—	5.88	4.50	3/8-16	.625	
R56C(2)	15.12	12.88	1.88	7.28	6.45	—	4.81	—	—	5.88	4.50	3/8-16	.625	
FB140TC(3)	11.38	—	2.25	7.28	6.45	9.65	—	4.26	1.91	5.88	4.50	3/8-16	.875	2.12
FC140TC(3)	12.38	—	2.25	7.28	6.45	9.65	—	5.82	2.65	5.88	4.50	3/8-16	.875	
FL140TC(3)	12.56	—	2.25	7.28	6.45	9.65	—	5.82	2.65	5.88	4.50	3/8-16	.875	
FJ140TC(3)	12.81	—	2.25	7.28	6.45	9.65	—	5.82	2.65	5.88	4.50	3/8-16	.875	
FD140TC(3)	13.44	—	2.25	7.28	6.45	9.65	—	5.82	2.65	5.88	4.50	3/8-16	.875	
FE140TC(3)	14.44	—	2.25	7.28	6.45	9.65	—	5.82	2.65	5.88	4.50	3/8-16	.875	
143TC	13.81	12.62	2.25	7.28	6.45	—	4.70	—	—	5.88	4.50	3/8-16	.875	
145TC	14.81	13.50	2.25	7.28	6.45	—	4.70	—	—	5.88	4.50	3/8-16	.875	
182TC	15.25	13.31	2.50	9.25	9.25	—	7.81	—	—	7.25	8.50	1/2-13	1.125	
184TC	16.25	14.31	2.50	9.25	9.25	—	7.81	—	—	7.25	8.50	1/2-13	1.125	
213TC	20.88	16.44	3.12	20.50	10.62	—	8.69	—	—	7.25	8.50	1/2-13	1.375	3.12
215TC	20.88	17.94	3.12	20.50	10.62	—	8.69	—	—	7.25	8.50	1/2-13	1.375	

## C-FACE BRAKE MOTOR DIMENSIONS

FA56C(4)	14.95	—	1.88	6.62	6.44	—	5.78	—	—	5.88	4.5	3/8-16	.6250	2.06
FB56C(4)	15.95	—	1.88	6.62	6.44	—	5.78	—	—	5.88	4.5	3/8-16	.6250	
FK56C(4)	16.45	—	1.88	6.62	6.44	—	5.78	—	—	5.88	4.5	3/8-16	.6250	
FC56C(4)	16.95	—	1.88	6.62	6.44	—	5.78	—	—	5.88	4.5	3/8-16	.6250	
FJ56C(4)	17.39	—	1.88	6.62	6.44	—	5.78	—	—	5.88	4.5	3/8-16	.6250	
FD56C(4)	18.02	—	1.88	6.62	6.44	—	5.78	—	—	5.88	4.5	3/8-16	.6250	
FE56C(4)	19.02	—	1.88	6.62	6.44	—	5.78	—	—	5.88	4.5	3/8-16	.6250	

### NOTES:

Dimensions are for reference only—for detailed dimensions, contact DODGE.

- Explosion proof 56C face 5.62" body motors have 3/4"-14 NPT female lead opening parallel to shaft in front endshield.
- Explosion proof 56C face 6.45" body motors have 3/4"-14 NPT male lead nipple perpendicular to shaft in

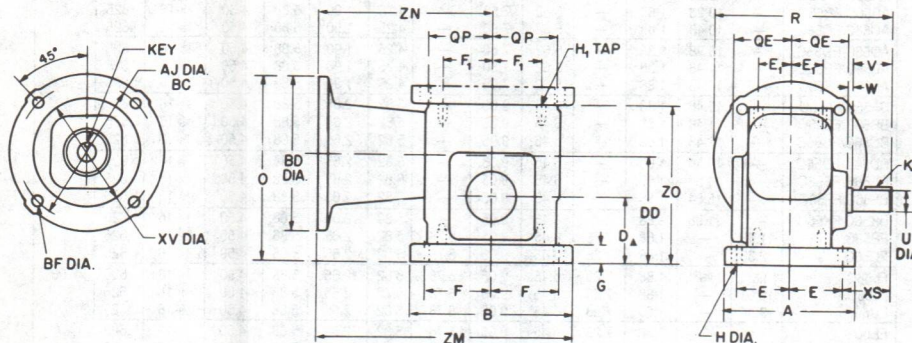
front endshield. 140TC thru 210TC frame motors have conduit boxes.

- 140TC face TEFC motors have top mounted F<sub>1</sub> F<sub>2</sub> conduit box dimensioned accordingly.
- Brakemotor C dimension includes brake assembled to drip-proof or TEFC motor.



# DODGE TIGEAR "S Series" Separate Reducers Dimensions

With Three-Piece Coupled C-Face Adaptor



▲ +.000/-0.031 on SHAFT HEIGHT

Case Size	A	B	D	DD	E	E <sub>1</sub>	F	F <sub>1</sub>	G	H	H <sub>1</sub> ▲	QE
S133	4.19	5.25	2.25	3.58	1.66	1.00	2.19	1.62	.53	.34	1/4-20	2.00
S150	5.19	6.12	2.50	4.00	2.16	1.12	2.62	1.75	.62	.44	1/4-20	2.09
S175	5.56	6.94	2.75	4.50	2.25	1.38	2.88	2.09	.75	.44	5/16-18	2.44
S200	5.66	7.27	3.00	5.00	2.34	1.44	3.19	2.50	.75	.50	3/8-16	2.44
S262	6.50	9.25	3.69	6.31	2.62	1.69	4.00	3.19	.81	.56	3/8-16	2.94
S350	7.38	10.75	5.00	8.50	3.06	2.00	4.75	3.75	1.00	.56	7/16-14	3.69

Case Size	QP	U <sup>1</sup>	V <sup>2</sup>	Key		XS	ZO	O		R		AJ	
				Sq.	Lgth.			56/140	180	56/140	180	56/140	180
S133	2.12	.6250	1.94	.19	1.00	2.34	5.41	6.83	—	7.28	—	5.88	—
S150	2.50	.7500	1.94	.19	1.00	2.16	6.13	7.25	—	7.61	—	5.88	—
S175	2.75	.8750	1.62	.19	1.00	2.08	6.62	7.75	—	7.61	—	5.88	—
S200	3.06	1.0000	2.00	.25	1.25	2.36	7.12	8.25	—	7.94	—	5.88	—
S262	3.69	1.1250	2.50	.25	1.25	3.00	9.19	9.56	10.81	8.88	10.12	5.88	7.25
S350	4.44	1.5000	3.12	.38	2.25	4.00	11.61	11.75	13.00	10.75	11.56	5.88	7.25

Case Size	BD		BF		W	XV <sup>2</sup>		ZM		ZN		WT. (lbs.)
	56/140	180	56/140	180		56/140	180	56/140	180	56/140	180	
S133	6.50	—	.44	—	.06	4.50	—	9.16	—	6.53	—	22
S150	6.50	—	.44	—	.19	4.50	—	10.00	—	6.94	—	25
S175	6.50	—	.44	—	.25	4.50	—	10.91	—	7.44	—	30
S200	6.50	—	.44	—	.25	4.50	—	11.44	—	7.81	—	33
S262	6.50	9.00	.44	.53	.19	4.50	8.50	13.70	14.60	9.07	9.97	53
S350	6.50	9.00	.44	.53	.25	4.50	8.50	15.26	16.16	9.88	10.78	94

▲ 4-Holes (Top and Bottom)

▲ +.000 - .001

▲ Usable Shaft Length

\* .0000-.0005

References	Std. Features p. G1-4—G1-6	Selection p. G1-8—G1-9	Inst./Maint./Opt. p. G1-41—G1-42	Mtr. Dim. p. G1-38—G1-39	Parts p. G1-46—G1-47
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**G1-40**

# Installation, Lubrication and Maintenance Information

## Sizes 133 thru 350 and S133 thru S350

### INSTALLATION

Proper installation of TIGEAR speed reducers will insure reliable service and maximum life. Key items to minimize possible failures include:

**Gear Case Mounting**—To ensure uniform pressure mount gear case on flat surface. Use uniform torque when mounting bolts are tightened. Case will mount in any catalog-approved position without modification or changing oil level. **No vent plugs to install.**

**Shaft Overhung Loads**—Excessive overhung loads due to over tightening of belts or chains can result in broken shafts and reduce bearing life or failure.

**Couplings**—Improper coupling alignment can result in excessive stresses on gear unit shaft and bearings.

**Shock Loads**—Excessive shock loads can also result in damaging stresses on shafting and bearings.

### LUBRICATION

Units are properly filled at the factory with sufficient lubrication for any catalog-approved mounting position. With RELIALUBE, the break-in period and subsequent oil change

ordinarily experienced with conventional reducers has been eliminated. **Oil need not be added at installation or changed after unit has been put in service.**

Change oil **only** when performing maintenance that requires gearbox disassembly. In this case use only Mobil SHC-634.

**Operating Temperature Limits:** Ambient - 10°F to + 165°F.

**Input Bore** lubricant is supplied with close coupled C-face units. If relubrication is required, use Fel-Pro C5A Anti-Seize or Mobiltemp 78 grease in the bore and on the motor shaft.

### MAINTENANCE

Regular inspection to insure tightness of bolts and screws, correct alignment of shaft and couplings, no major oil leaks, no excessive heating and no unusual vibration or noises will guarantee maximum performance and life of your TIGEAR speed reducer.

## OPTIONS

### TIGEAR REDUCER CONVERSION BASE KITS

Conversion Base Kits consist of a bolt-on foot and screws. Attached to a TIGEAR RELIALUBE reducer, it will allow a customer to replace an Alpha Series TIGEAR or MASTER XL single worm unit without changing mounting holes in existing equipment.

Order by part number shown in table. Note that kits are not required for the 175 and 200 size units. In these sizes, the standard foot will interchange with the Alpha Series or XL size W16. Conversion Base Kits for sizes 150 are obsolete.

#### Conversion Base Kits to Adapt Present TIGEAR to Alpha Mounting

Present TIGEAR No.	Previous No.		Kit Part No.
	Alpha TIGEAR	XL	
262	E262	W21	411642-35-M
350	F350	W28	411642-35-N

### TIGEAR REDUCERS W/RELIALUBE SYSTEM CAST IRON BASE KITS

A cast iron base should be used on TIGEAR reducers with RELIALUBE System when operating environments are hostile to aluminum. TIGEAR reducers with Relialube System conform to the Baking Industry Sanitation Standards Committee standards whether used footless or with cast iron base kit.

The cast iron base kits listed include the cast iron base, bolts, lock washers, hole plugs for top of case and a BISSC certified label. To order, use the base kit part numbers that correspond to the case size in the table.

#### Cast Iron Base Kit Part Numbers

Case Size	Kit Part No.	Case Size	Kit Part No.
150	411642-35W	200	411642-35Y
175	411642-35X	262	411642-35Z

Note: Case size 350 has a standard cast iron base. 133 cast iron base not available.

References	Ratings p. G1-10—G1-13	Selection p. G1-8—G1-9	Delivery p. G1-48	Mtr. Dim. p. G1-38—G1-39	Parts p. G1-44—G1-47	Std. Features p. G1-4—G1-6
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# OPTIONS

## Food Grade Lubricant

Chevron FM460X lubricant for use in DODGE TIGEAR reducers is available from production. This is a modification option to the RELIALUBE system and is available at no extra charge on the Red Baron Delivery Cycle. This lubrication serves the needs of batch food processors for a non-contaminating worm gear oil.

Chevron FM460X carries USDA Class A and H1 approvals. Use of this lubricant can reduce the potential damage to food caused by seeping, leaking, and worn out shaft seals. In place of the lube information sticker covering tapped holes usually provided on TIGEAR reducers, units purchased with this option will be furnished with cap plugs.

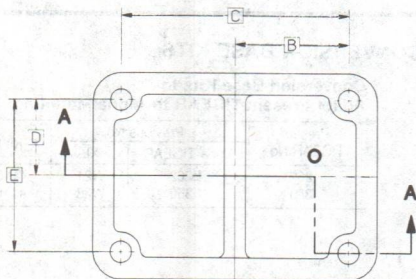
## Low Temperature Operation

Standard lubricant provided with TIGEAR reducers covers an operating range down to  $-10^{\circ}\text{F}$ . To apply TIGEAR reducers in applications from  $-11^{\circ}\text{F}$  to  $-30^{\circ}\text{F}$ , specify Mobil SHC629—available at no charge, on the Red Baron delivery cycle.

## TIGEAR Riser Blocks

The riser blocks allow clearance over the motor without inverting the speed reducer.

Riser blocks permit the speed reducer to be mounted in the most desirable position; i.e. high speed or input shaft above the oil level. Experience shows that this position results in increased seal life and durability.



DISCOUNT—D-46a

SIZE	PART NO.	LIST PRICE	B	C	D	E	F BOLT HOLE DIAMETER	G
133	RB94915	\$ 30	1.62	3.25	1.00	2.00	.28	1.66
150	RB94916	\$ 36	1.75	3.50	1.12	2.25	.28	1.38
175	RB94917	\$ 40	2.09	4.19	1.38	2.75	.34	1.38
200	RB94918	\$ 50	2.50	5.00	1.44	2.88	.41	1.38
262	RB94919	\$ 94	3.19	6.38	1.69	3.38	.41	1.91
350	RB94920	\$130	3.75	7.50	2.00	4.00	.47	1.69

References	Ratings p. G1-10—G1-13	Selection p. G1-8—G1-9	Delivery p. G1-48	Mtr. Dim. p. G1-38—G1-39	Parts p. G1-44—G1-47	Inst./Maint. p. G1-41
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# Options

## EXPORT BOXING

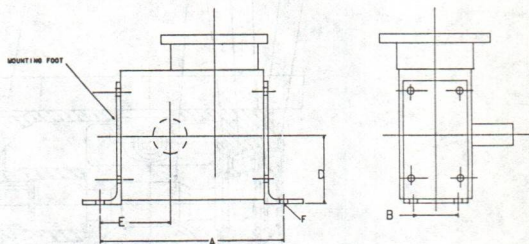
Wood Crating—Add 10% to reducer net price.  
Std. Carton—Add 3% to reducer net price.  
Container Pack—Add 12% to reducer net price.

## G1GEAR J-Mount Base Kits

The mounting feet and hardware contained in this package will allow conversion from a horizontally mounted reducer to a vertically mounted reducer.

### INSTRUCTION

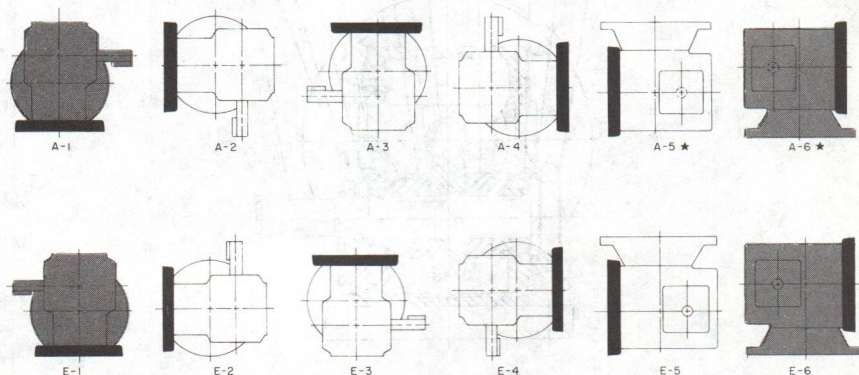
1. Remove and discard horizontally mounting feet (if provided).
2. Attach 2 mounting feet to the gearcase using nex head screws and lockwashers provided in package (refer to picture).



Multiplier D-46a

CASE SIZE	STOCK NUMBER	KIT NUMBER	FOOT NUMBER	A	B	D	E	F	LIST PRICE
150	MJ94925	806691	79035-41-A	8.00	2.50	3.50	3.12	.41	75.50
175	MJ94926	806692	79035-41-B	8.38	2.50	3.50	3.25	.41	87.50
200	MJ94927	806693	79035-41-C	9.00	2.63	3.94	3.56	.47	90.50
262	MJ94928	806694	79035-41-D	11.50	3.13	4.75	4.44	.53	118.50
350	MJ94929	806695	79035-41-E	13.50	4.00	5.50	5.45	.56	120.50

## Mounting Positions—Multimount Foot on Top



\*Countershaft is located on the concealed side of these units.

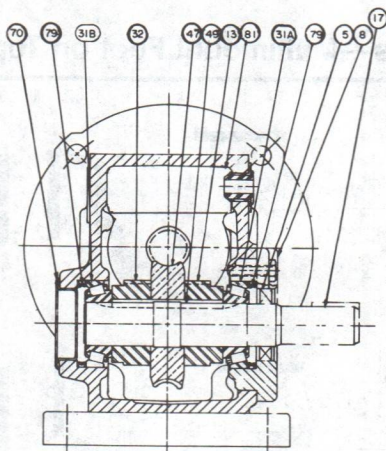
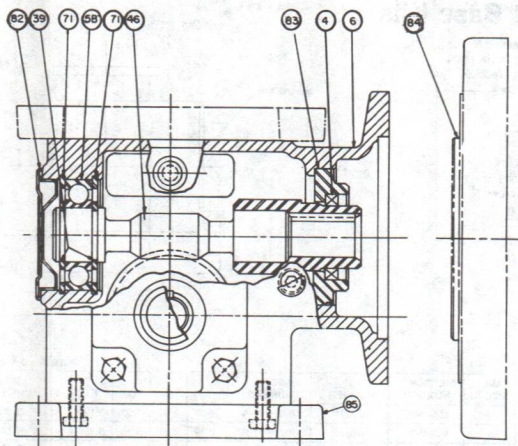
**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.



## DODGE TIGEAR C-FACE REDUCER WITH RELIALUBE

RIGHT ANGLE—SINGLE REDUCTION

SIZES 133-150—175-200—262-350



References	Std. Features p. G1-4—G1-6	Ratings p. G1-10—G1-13	Selection p. G1-8—G1-9	Inst./Maint./Opt. p. G1-41—G1-42
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# DODGE TIGEAR C-FACE REDUCER

## RIGHT ANGLE—SINGLE REDUCTION SIZES 133-150—175-200—262-350

Ref. No.	Parts Description	Unit Qty.	Part Numbers					
			133	150	175	200	262	350
* 4	Oil Seal, Input (56 Fr.) Oil Seal, Input (140C Fr.) Oil Seal, Input (180C Fr.)	1	411627-01CC — —	411627-02EA — —	411627-02EA 411627-02EB —	411627-02EA 411627-02EB —	411627-02EC 411627-02EC 411627-01BW	411627-02EC 411627-02EC 411627-01BW
* 5B	Bearing, Ball	1	79147-02P	79147-02P	79147-02AD	79147-02AD	79147-02AL	79147-03V
* 31B	Bearing, Roller—Opp. Ext.	1	411626-01E	411626-01BE	411626-01BE	411626-01C	411626-01A	411626-01R
* 31A	Bearing, Roller—Ext. End	1	411626-01E	411626-01BE	411626-01BE	411626-01C	411626-01A	411626-01R
6	Gear Case	1	86898-04A	86897-02AA	86899-02AA	86900-02AA	86853-06AA	86865-06AA
8	Bearing Housing	1	602401-02BB	602401-02AA	602401-02AA	602401-02AA	602035-16AA	79141-02AA
* 15	Oil Seal—Output Shaft (2)	1	411627-02EH	411627-02DS	411627-02DS	411627-02DS	411627-02ED	411627-02EE
17	Output Shaft, Single Ext.	1	602403-04A	602026-64AA	602389-01AA	602027-79AC	602354-75AA	602354-25AA
	Output Shaft, Double Ext.	1	602403-05A	602026-74AA	602389-03AA	602027-79AB	602354-41AA	602354-39AA
* 46	Worm Shaft	1						
* 47	Worm Gear	1						
13	Spacer, Worm Gear—Outer	1	602405-12H	602405-12A	602405-12B	602405-12C	602405-12E	602405-12G
32	Spacer, Worm Gear—Inner	1	602405-12H	602405-12A	602405-12B	602405-12C	602405-12D	602405-12F
49	Key, Worm Gear	1	51744	51982	415104-40E	415104-40E	415104-40F	415104-40G
84	Adaptor, Motor	—	—	—	—	—	79067-22AA	79067-22AA
83	Adaptor, Housing—Input Seal	—	602405-17A	602405-13A	602405-13B	602405-13B	602405-13C	602405-13D
* 39	Retaining Ring	2	411637-02E	411637-02E	411637-02N	411637-02N	411637-02AP	411637-02AR
* 71	Retaining Ring	2	56618	56618	58256	59256	411637-01A	411637-02AC
82	Plug, Input Bore	1	602405-16A	602405-16A	602405-16B	602405-16B	602405-16C	602405-16D
70	Plug, Output Bore (3)	1	602405-15D	602405-15A	602405-15A	602405-15A	602405-15B	602405-15C
79	Load Ring, Output Shaft Brgs.	—	(1)	(1)	(1)	(1)	(1)	(1)
81	Compression Chamber	1	79142-02AF	79142-02AA	79142-02AB	79142-02AC	79142-02AD	79142-02AE
85	Bolt on Foot	1	79140-15B	79140-05A	79140-07A	79140-09A	79140-11A	79140-14A
* (1)	Shim Pack	1	411623-33A	411623-33A	411623-33A	411623-33A	411623-33B	411623-33C

(1) Discard the load ring and use the shim pack that consists of output bearing spacers and shims for shimming bearings and centering gears when replacing the original worm gear.

(2) Qty. 2 required for double shaft extension.

(3) Not required for double shaft extension.

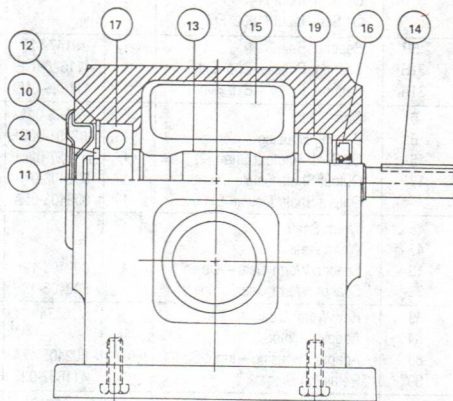
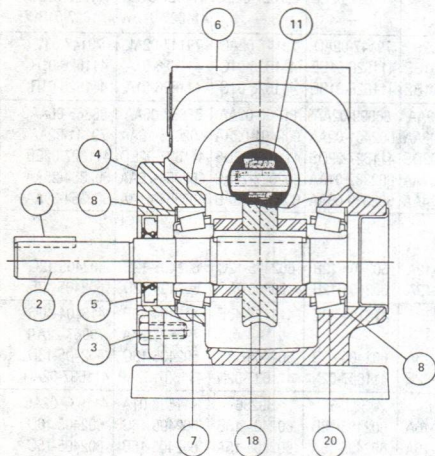
\* Recommended spare parts.

**Note:** For Part Numbers not shown contact Renewal Parts Customer Service.



## DODGE TIGEAR SEPARATE REDUCER

SIZES S133-S150—S175-S200—S262-S350



References	Std. Features p. G1-4—G1-6	Ratings p. G1-10—G1-13	Selection p. G1-8—G1-9	Inst./Maint./Opt. p. G1-41—G1-42
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# DODGE TIGEAR SEPARATE REDUCER

SIZES S133-S150—S175-S200—S262-S350

Ref. No.	Parts Description	Qty.	Part Numbers					
			S133	S150	S175	S200	S262	S350
1	Output Shaft Key	1	415104-40A	415104-40A	415104-40A	415104-40B	415104-40B	415104-40C
17	Output Shaft	1	602403-04A	602026-64AA	602389-01AA	602027-79AC	602354-75AA	602354-25AA
3	Bearing Housing Bolts	4	411631-58A	411631-58A	411631-58A	411631-58C	411631-58C	411631-58D
8	Bearing Housing	1	602401-02BB	602401-02AA	602401-02AA	602401-02AA	602035-16AA	79141-02AA
*15	Output Shaft Seal(2)	1	411627-02EH	411627-02DS	411627-02DS	411627-02DS	411627-02ED	411627-02EE
6	Gearcase	1	86898-06A	86897-02BA	86899-02BA	86900-02BA	86853-06BA	86865-06BA
*31A	Roller Bearing	1	411626-01E	411626-01BE	411626-01BE	411626-01C	411626-01A	411626-01R
*79	Shim Pack(1)	1	411623-01AD	411623-33A	411623-33A	411623-33A	411623-33B	411623-33C
82	Input Bore Plug	1	602405-16A	602405-16R	602405-16C	602405-16C	602405-16S	602405-16W
11	Data Plate	1	602415-23A	602415-23A	602415-23A	602415-23A	602415-23A	602415-23A
71	Lockring (Front)	1	056618	411637-02AV	411637-01A	411637-01A	411637-02AW	411637-02AX
46	Worm	1	—	—	—	—	—	—
14	Input Shaft Key	1	415104-40H	415104-40D	415104-40E	415104-40E	415104-40F	415104-40G
81	Compression Chamber	1	79142-02AF	79142-02AA	79142-02AB	79142-02AC	79142-02AD	79142-02AE
* 4	Input Seal	1	411627-01BY	411627-01BY	411627-01CA	411627-01CA	411627-01CB	411627-01CB
5B	Input Shaft Bearing	1	79147-02K	79147-02K	79147-02BY	79147-02BY	79147-02AL	79147-02AL
47	Worm Gear	1	—	—	—	—	—	—
* 5A	Input Shaft Bearing	1	79147-02P	79147-02BF	79147-02AL	79147-02AL	79147-02AT	79147-03CK
*31B	Roller Bearing	1	411626-01E	411626-01BE	411626-01BE	411626-01C	411626-01A	411626-01R
39	Lockring	1	411637-02E	411637-02AY	411637-02AP	411637-02AP	411637-02BA	411637-02BA
70	Output Bore Plug(3)	1	602405-15D	602405-15A	602405-15A	602405-15A	602405-15B	602405-15C

(1) Discard the load ring and use the shim pack that consists of output bearing spacers and shims for shimming bearings and centering gears when replacing the original worm gear.

(2) Qty. 2 required for double shaft extension.

(3) Not required for double shaft extension.

\*Recommended spare parts.

**Note:** For Part Numbers not listed contact Renewal Parts Customer Service.



# Delivery/Data Distribution

**TIGEAR Reducers are available for delivery by four different methods.**

**These are:**

1. **Stock**—Over 200 ratings are available from stock.
2. **"Red Baron"**—By marking orders "Red Baron" all nonstock ratings may be obtained in a special 3-week production cycle. Call customer service or see stock list for availability.
3. **Super Cycle**—DODGE offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact customer service for a parts check on the rating of your specification.
4. Normal delivery cycle is 6-8 weeks.

## DATA DISTRIBUTION

Certified Dimension Sheets, Parts Lists, Instruction Manuals.

Each customer is entitled at no additional cost, upon request at order entry, to three (3) each of the above per order, or one (1) each per unit on the order depending upon whichever is greater. For quantities greater than listed above, there will be a charge of \$10.00 Net per copy of each.

Composite drawings—special motor/gearbox Combination drawings—\$250 net.

References	Std. Features p. G1-4—G1-6	Ratings p. G1-10—G1-13	Selection p. G1-8—G1-9	Inst./Maint./Opt. p. G1-41—G1-42	Parts p. G1-44—G1-47
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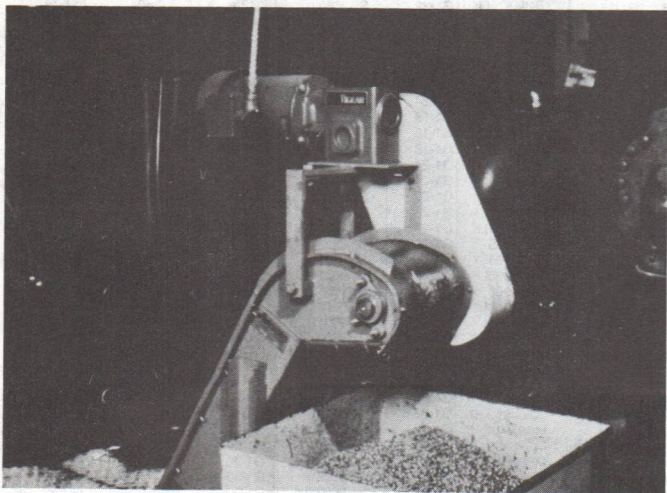
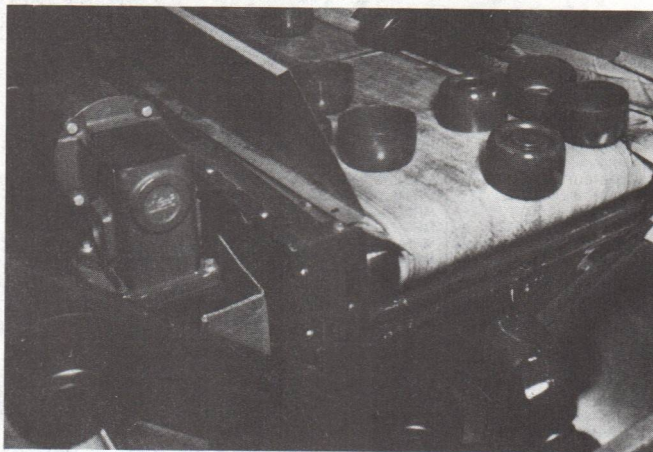
# TIGEAR Model Number Index

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CA96056	G1-30, G1-32	MR94671	G1-24	MR94762LK	G1-20	MR96107L1	G1-14	SR96029	G1-32
CA96057	G1-34	MR94671L1	G1-24	MR94763	G1-20	MR96108	G1-14	SR96029L1	G1-32
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MR94667L1	G1-22	MR94759	G1-18	MR96102	G1-14	SR96023L1	G1-30	SR96054	G1-36
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MR94668	G1-22	MR94759LK	G1-18	MR96103	G1-14	SR96024L1	G1-30	411642-35-L	G1-41
MR94668L1	G1-22	MR94760	G1-20	MR96103L1	G1-14	SR96025	G1-30	411642-35-M	G1-41
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MR94670	G1-24	MR94761LK	G1-20	MR96106	G1-14	SR96027L1	G1-30	411642-35-Z	G1-41
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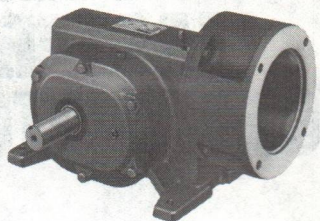
# DODGE TIGEAR REDUCER

DODGE TIGEAR driving a belt conveyor.



This TIGEAR Reducer efficiently drives a chip conveyor running from a lathe to an accumulator bin.

# MASTER<sup>®</sup> XL Right Angle C-Face Speed Reducers and Gearmotors



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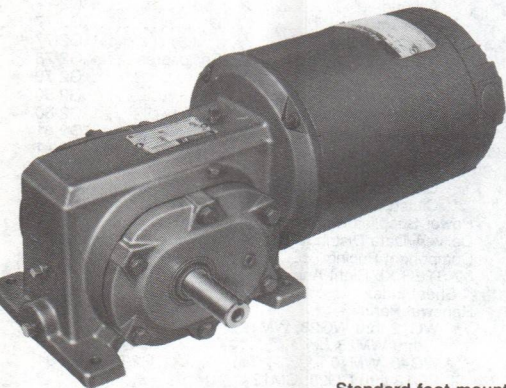
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# RIGHT-ANGLE MASTER<sup>®</sup> XL GEARMOTORS

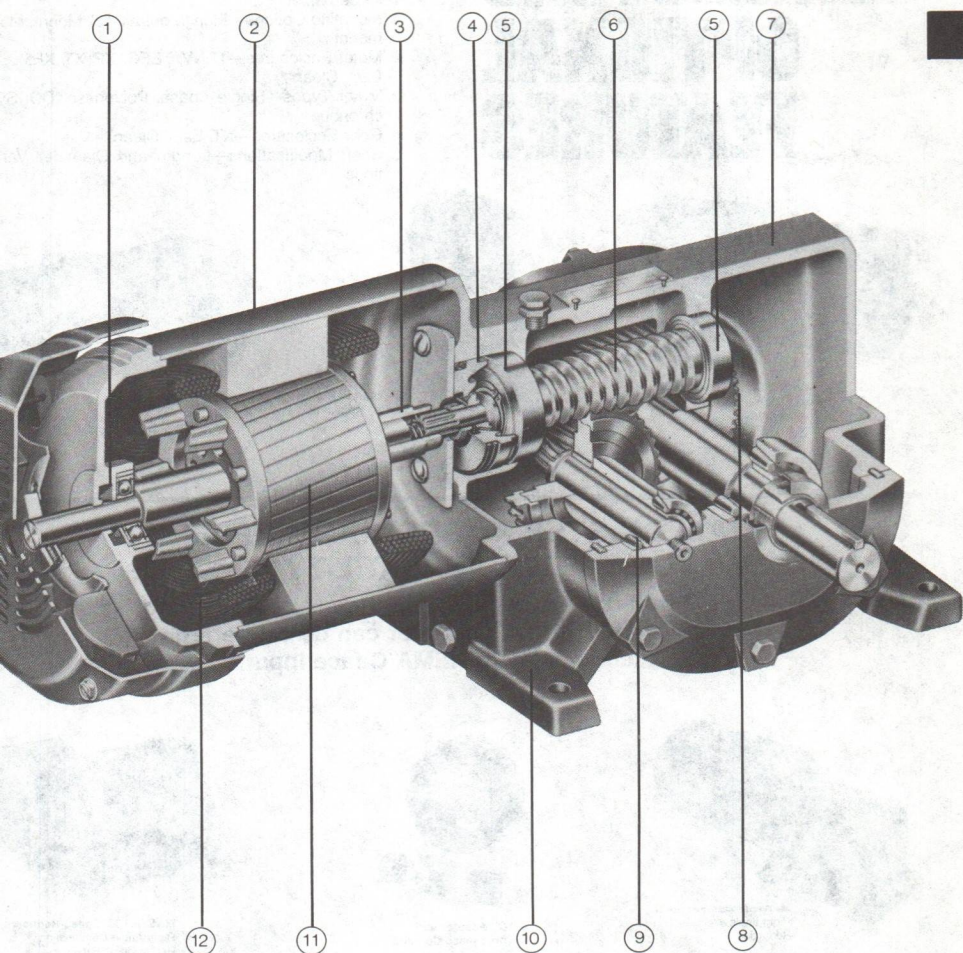
MASTER Gear has developed one of the broadest lines of gearmotors and related equipment available today. That means you can select a product that is not only capable of meeting your speed reduction requirements, but is ideally suited for your specific industry, application and environment. When it comes to quality and expertise in speed reduction equipment, depend on the leader. MASTER XL Gearmotors. The first choice of industry for more than 60 years, the first choice of industry today.



Standard foot mounted  
Right-Angle MASTER XL Combination Gearmotor

- ① Permanently lubricated ball bearings.
- ② Choice of RPM III D-C or Duty MASTER A-C drive motor.
- ③ Involute spline coupling assures proper load sharing, with corrosion-resistant molybdenum disulfide lubrication.
- ④ Lip seal on output shaft for oil retention and dirt exclusion.
- ⑤ Long lasting, double shielded ball bearings for high speed input shafts.
- ⑥ Worms are machined directly on the input shaft for accuracy, durability and high gear efficiency. Worm is straddle mounted between bearings for rigid support.
- ⑦ Cast-iron gearcase provides rigidity to handle heavy loads under the toughest operating conditions. Smooth, finless design allows easy cleaning.
- ⑧ Parallel helical gearing stage follows worm gear in combination gearmotors for maximum gear train efficiency and quiet operation, and up to 336:1 reductions.
- ⑨ Rugged tapered roller bearings for high overhung load capacity on output shafts.
- ⑩ Integrally cast feet give solid support and rigid alignment.
- ⑪ Dynamically balanced rotating assembly assures smooth, vibration-free operation.
- ⑫ Long lasting high temperature insulation system.

Single worm gear reductions also available 5:1 thru 60:1.



References	Ratings p. G2-8—G2-13	Selection p. G2-6 & G2-7	Inst./Maint. p. G2-29	Modifications p. G2-75—G2-83	Parts p. G2-88—G2-97
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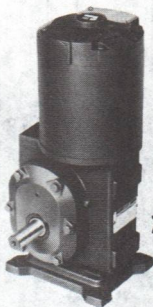
# MASTER<sup>®</sup> XL GEARMOTORS OPTIONAL FEATURES

A variety of optional features are available for Right Angle MASTER XL Gearmotors to meet your specific job requirements. These features help make the MASTER XL Gearmotor line the most flexible product line available today, and assure you matched component dependability.

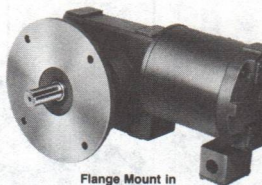
- 1 Mounting Options—Flange output, "J" Mount, Multi-mount
- 2 Motor Enclosures—TENV, TEFC, XP, XT, XE, Easy Clean
- 3 Motor Types—Single Phase, Polyphase, DC, Synchronous
- 4 Gear Enclosures—XT, Easy Clean
- 5 Shaft Modifications—Length and Diameter Variations



**MULTI-MOUNT**  
Base in Right-Angle  
Application



**J-Mount in Right-Angle**  
Application



**Flange Mount in**  
Right-Angle  
Application

## ALL MASTER XL PRODUCTS OFFER C-FACE VERSATILITY

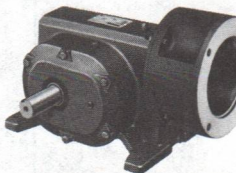
With a bolt-on "C" adapter and three-piece coupling kit, any MASTER XL Gearmotor can be converted to accommodate a NEMA C-face input.



**MASTER XL Gearmotor**  
Right angle, Combination  
Reduction



**"C" Adapter and**  
Three-piece Coupling  
Kit.



**MASTER XL Speed Reducers**  
Right Angle Combination  
Reduction, C-Face

### Typical Overall Length Addition

56/140	—	4 1/16"
180	—	4 5/32"
210	—	4 2 1/32"

Integral Gearmotors  
pages G2-51 thru G2-86

C-Face Reducers  
pages G2-2 thru G2-50

# Easy Reference Table

This **Quick Reference Table** is for specific Output Horsepower at 1750 RPM when Output RPM and Ratios are known. Trace across from Output RPM/Ratio columns to Input RPM requirements above. Below you will find reducer (Case) Size and page numbers

for each specific size. Above note frame sizes listed.

This chart does not include all possible selections.

## Right Angle C-Face Reducers @ 1750 Input RPM

INPUT RPM	RATIO	FRAME HP IN	56C 1/4	56C 1/3	56C 1/2	56C 3/4	56C 1	140TC 1 1/2	140TC 2	180TC 3	180TC 5	210TC 7 1/2	210TC 10
350	5	Size Page	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM28 G2-20	WM40 G2-22	WM40 G2-22
233	7.5	Size Page	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM28 G2-20	WM40 G2-22	WM40 G2-22
175	10	Size Page	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM21 G2-18	WM28 G2-20	WM40 G2-22	WM40 G2-22
137	12.7	Size Page	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM28 G2-20	WM28 G2-20	WM40 G2-22	WM40 G2-22
117	15	Size Page	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM21 G2-18	WM28 G2-20	H419 G2-24	H419 G2-24	H419 G2-24
97	18	Size Page	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM21 G2-18	WM28 G2-20	WM40 G2-22	WM40 G2-22	WM40 G2-22
88	20	Size Page	WM12 G2-14	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	CM16 G2-32	WM28 G2-20	CM21 G2-34	H419 G2-24	CM28 G2-36
70	25	Size Page	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM21 G2-18	CM16 G2-32	WM28 G2-20	CM21 G2-34	CM28 G2-36	CM28 G2-36
58	30	Size Page	WM12 G2-14	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	CM16 G2-32	CM16 G2-32	CM21 G2-34	G2-24	G2-36	G2-38
48	36	Size Page	CM12 G2-30	CM12 G2-30	CM12 G2-30	CM12 G2-30	CM16 G2-32	CM16 G2-32	CM16 G2-32	CM21 G2-34	CM28 G2-36	CM28 G2-36	CM40 G2-38
44	40	Size Page	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM21 G2-18	CM16 G2-32	CM21 G2-34	CM21 G2-34	H419 G2-24	CM28 G2-38	CM40 G2-38
35	50	Size Page	WM12 G2-14	WM16 G2-16	WM16 G2-16	WM21 G2-18	CM16 G2-32	CM16 G2-32	CM21 G2-34	G2-24	G2-36	G2-38	CM40 G2-38
29	60	Size Page	WM16 G2-16	WM16 G2-16	WM21 G2-18	WM21 G2-18	CM16 G2-32	CM21 G2-34	CM21 G2-34	G2-36	G2-36	G2-38	CM40 G2-38
25	70	Size Page	CM12 G2-30	CM12 G2-30	CM12 G2-30	CM16 G2-32	CM16 G2-32	CM21 G2-34	CM21 G2-34	CM28 G2-36	CM28 G2-36	CM40 G2-38	CM40 G2-38
20	86	Size Page	CM12 G2-30	CM12 G2-30	CM16 G2-32	CM16 G2-32	CM16 G2-32	CM21 G2-34	CM21 G2-34	CM28 G2-36	CM28 G2-38	CM40 G2-38	CM40 G2-38
17	101	Size Page	CM12 G2-30	CM12 G2-30	CM16 G2-32	CM16 G2-32	CM16 G2-32	CM21 G2-34	CM28 G2-36	CM28 G2-36	CM40 G2-38	CM40 G2-38	
14	121	Size Page	CM12 G2-30	CM12 G2-30	CM16 G2-32	CM16 G2-32	CM16 G2-32	CM28 G2-36	CM28 G2-36	CM40 G2-38	CM40 G2-38		
12	144	Size Page	CM12 G2-30	CM12 G2-30	CM16 G2-32	CM16 G2-32	CM16 G2-32	CM28 G2-36	CM28 G2-36	CM40 G2-38	CM40 G2-38		
9	192	Size Page	CM12 G2-30	CM16 G2-32	CM16 G2-32	CM21 G2-34	CM21 G2-34	CM28 G2-36	CM28 G2-36	CM40 G2-38	CM40 G2-38		
7	240	Size Page	CM16 G2-32	CM16 G2-32	CM16 G2-32	CM21 G2-34	CM28 G2-36	CM28 G2-36		CM40 G2-38			
6	288	Size Page	CM16 G2-32	CM16 G2-32	CM21 G2-34	CM21 G2-34	CM21 G2-34	CM21 G2-34	CM21 G2-34	CM40 G2-38			

Note: Preassembled Gearmotors, integral construction, page G2-51.



## Selection Information

**SELECTION EXAMPLE:** A C-face right angle reducer is required to drive a continuous belt conveyor. The prime mover is a 1750 rpm electric motor. The conveyor will see a moderate amount of shock loading. The reducer output shaft must drive the conveyor at approximately 20 rpm. Conveyor load averages 1500 in. lbs. (750 lbs. over 2" radius pulley) and the duty cycle is 24 hours per day.

**STEP 1:** Reducer Service Factor Table on page G2-7 indicates a 1.50 service factor. (Under headings: electric motor, 24 hours per day service and medium load classification). Equivalent load = 1500 in. lbs.  $\times$  1.50 = 2250 in. lbs. Ratio is calculated by dividing input speed (1750 rpm) by required output speed (in this case, 20 rpm).  $1750 \div 20 = 87.5$  ratio.

**STEP 2:** Refer to Rating Table (page G2-11) and select the output torque rating opposite the 86:1 ratio that equals or slightly exceeds the requirement (2250 in. lbs.). In this case, the CM16 reducer with a rating of 2522 in. lbs. at 86:1 ratio would be the proper selection based on the mechanical capacity.

**STEP 3:** Refer to page number listed on the rating table.

**STEP 4:** To check Minimum Motor HP, Use:

$$\text{HP (Req'd.)} = \frac{\text{Speed} \times \text{Torque (Req'd.)}}{63025}$$

$$\text{HP (out)} = \frac{20 \times 1500}{63025}$$

$$\text{HP (out)} = .4760$$

To determine input horsepower; divide output horsepower by gearbox efficiency.

$$\text{HP (IN)} = \frac{\text{HP (out)}}{\text{Efficiency}} = \frac{\text{HP (out)}}{\frac{\text{HP (max out)}}{\text{HP (max in)}}} = \frac{.4760}{.81} = \frac{.4760}{1.05} = .62$$

Therefore a  $\frac{3}{4}$  HP motor is required. Make certain gearbox will handle HP input. If gearbox selection is too small — select next higher gearbox size.

**STEP 5.** If the output shaft is connected by other than a flexible coupling, calculate the OVERHUNG LOAD.—Refer to page G2-7, "OVERHUNG LOAD."

References	Ratings p. G2-8—G2-13	Inst./Maint. p. G2-29	Mtr. Dim. p. G2-44 & G2-45	Parts p. G2-88—G2-97	Delivery p. G2-84
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## Reducer Service Factors

Prime Mover	Duration of Service Per Day	Driven Machine Load Classification		
		Uniform	Medium Shock	Heavy Shock
Electric Motor	Occasional 1/2 hr.	0.80	0.90	1.00
	Intermittent 2 hrs.	0.90	1.00	1.25
	10 hours	1.00	1.25	1.50
	24 hours	1.25	1.50	1.75
Electric Motor With Frequent Starts and Stops	Occasional 1/2 hr.	0.90	1.00	1.25
	Intermittent 2 hrs.	1.00	1.25	1.50
	10 hours	1.25	1.50	1.75
	24 hours	1.50	1.75	2.00
Multi-cylinder Internal Combustion Engine	Occasional 1/2 hr.	0.90	1.00	1.25
	Intermittent 2 hrs.	1.00	1.25	1.50
	10 hours	1.25	1.50	1.75
	24 hours	1.50	1.75	2.00
Single Cylinder Internal Combustion Engine	Occasional 1/2 hr.	1.00	1.25	1.50
	Intermittent 2 hrs.	1.25	1.50	1.75
	10 hours	1.50	1.75	2.00
	24 hours	1.75	2.00	2.25

## Overhung Load

To determine overhung load, divide the torque required by the pitch radius of the sprocket, sheave, etc. and multiply by the appropriate factor as follows:

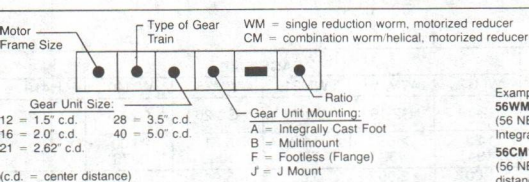
Chain Drive	1.00	V-Belt	1.50
Synchronous Belt Drive	1.10	Flat Belt	2.50
Spur or Helical Gear	1.25		

The calculated overhung load must not exceed the Output Shaft rating.

For loads acting at more than one shaft diameter from bearing housing, use following conversion factors:

Distance in Shaft Diameters From Brg. Hsg.	Multiply OHL Capacity By This Factor
1 D	1.0
2 D	.65
3 D	.45
4 D	.35
5 D	.30

## MASTER XL Right Angle Single and Combination Reduction Speed Reducers



Examples:

**56WM12A-60** MASTER XL Right Angle Speed Reducer.  
(56 NEMA C-Face, Single Reduction Worm, 1.5" center distance, Integrally Cast Foot, 60:1 Ratio.)

**56CM12A-60** MASTER XL Right Angle Speed Reducer.  
(56 NEMA C-Face, Combination Worm and Helical, 1.5" center distance, Integrally Cast Foot, 60:1 Ratio.)

The nomenclature shown in the box above is for MASTER XL units. The first numbers indicate the NEMA C-Face that is physically compatible. Second set of digits indicates the type of gear train used (WM for single reduction worm or CM for combination worm and helical). The third set of digits represent the gear center distance in eighths. This is

stated as case size. (12 = 1.5" center distance, 16 = 2.0" c.d., 21 = 2.62" c.d., 28 = 3.5" c.d. and 40 = 5.0" c.d. The fourth digit indicates the type of mounting used (A = integrally Cast Foot, B = Multimount, F = Flange, J = J Mount). The last set of numbers refers to the gear ratio, e.g., 60 = 60:1 gear ratio.

For special shafts, ratios, paint, or other modifications not shown, contact our Applications Engineering Center at 812 376-1100.

References	Ratings p. G2-8-G2-13	Selection p. G2-6	Inst./Maint. p. G2-29	Mtr. Dim. G2-44 & G2-45
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# Rating Tables — MASTER XL Right Angle Reducers Single Reduction

## 2500 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			WM12	WM16	WM21	WM28	WM40	H419
Refer to the following pages for Selection Information on each size.			G2-14	G2-16	G2-18	G2-20	G2-22	G2-24
5	500	Max. HP In Max. Torque Out (In. lbs.)	1.51 166	2.65 303	5.00 583	6.95 810	21.00 2475	—
7.5	333	Max. HP In Max. Torque Out (In. lbs.)	1.23 198	2.18 365	3.66 626	6.13 1059	16.00 3684	—
10	250	Max. HP In Max. Torque Out (In. lbs.)	1.00 202	2.00 436	3.38 763	5.50 1252	15.30 3479	—
12.7	197	Max. HP In Max. Torque Out (In. lbs.)	.82 210	1.66 449	3.16 895	5.00 13.92	12.30 3475	—
15	167	Max. HP In Max. Torque Out (In. lbs.)	.67 195	1.50 467	2.70 885	4.08 1337	11.40 3770	11.60 3904
18	139	Max. HP In Max. Torque Out (In. lbs.)	.61 211	1.32 482	2.47 969	3.84 1494	9.67 3734	—
20	125	Max. HP In Max. Torque Out (In. lbs.)	.55 203	1.26 508	2.19 940	3.36 1416	—	9.03 3903
25	100	Max. HP In Max. Torque Out (In. lbs.)	.50 217	1.09 532	2.00 1017	3.16 1642	8.80 4573	—
30	83	Max. HP In Max. Torque Out (In. lbs.)	.40 190	.90 483	1.50 857	2.81 1702	6.98 4167	6.36 3819
40	63	Max. HP In Max. Torque Out (In. lbs.)	.36 212	.78 523	1.24 892	2.09 1537	5.95 4556	5.59 4300
50	50	Max. HP In Max. Torque Out (In. lbs.)	.30 208	.67 539	1.05 895	2.00 1688	5.55 5103	5.03 4654
60	42	Max. HP In Max. Torque Out (In. lbs.)	.27 210	.55 499	.93 918	—	5.00 5259	—

## 1750 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			WM12	WM16	WM21	WM28	WM40	H419
Refer to the following pages for Selection Information on each size.			G2-14	G2-16	G2-18	G2-20	G2-22	G2-24
5	350	Max. HP In Max. Torque Out (In. lbs.)	1.23 194	2.68 439	4.62 770	6.61 1096	23.00 3875	— —
7.5	233	Max. HP In Max. Torque Out (In. lbs.)	1.00 221	2.00 469	3.67 894	5.94 1461	18.00 4485	— —
10	175	Max. HP In Max. Torque Out (In. lbs.)	.80 234	1.88 583	3.00 949	5.10 1644	16.00 5253	— —
12.7	138	Max. HP In Max. Torque Out (In. lbs.)	.69 257	1.54 591	2.69 1079	5.00 1980	12.70 5147	— —
15	117	Max. HP In Max. Torque Out (In. lbs.)	.55 227	1.38 618	2.26 1038	3.79 1754	11.60 5497	10.18 4811
18	97	Max. HP In Max. Torque Out (In. lbs.)	.53 261	1.18 608	2.01 1105	3.83 2127	10.00 5497	— —
20	87	Max. HP In Max. Torque Out (In. lbs.)	.50 245	1.08 601	1.82 1096	3.15 1873	— —	8.21 4985
25	70	Max. HP In Max. Torque Out (In. lbs.)	.41 266	.90 612	1.63 1188	3.00 2192	7.87 5829	— —
30	58	Max. HP In Max. Torque Out (In. lbs.)	.36 242	.75 559	1.21 990	2.70 2311	6.45 5433	5.98 5046
40	44	Max. HP In Max. Torque Out (In. lbs.)	.31 257	.64 596	1.03 1026	2.00 1993	5.36 5710	5.11 5450
50	35	Max. HP In Max. Torque Out (In. lbs.)	.27 257	.57 620	.88 1040	1.80 2211	4.59 5848	4.63 5926
60	29	Max. HP In Max. Torque Out (In. lbs.)	.19 204	.40 496	.79 1067	— —	3.96 5797	— —

## 1160 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			WM12	WM16	WM21	WM28	WM40	H419
Refer to the following pages for Selection Information on each size.			G2-14	G2-16	G2-18	G2-20	G2-22	G2-24
5	232	Max. HP In	.95	2.48	4.37	6.35	20.40	—
		Max. Torque Out (In. lbs.)	222	610	1094	1583	5156	—
7.5	155	Max. HP In	.65	1.32	3.28	5.06	16.40	—
		Max. Torque Out (In. lbs.)	219	469	1201	1866	6137	—
10	116	Max. HP In	.64	1.51	2.54	4.71	13.20	—
		Max. Torque Out (In. lbs.)	280	695	1208	2268	6425	—
12.7	91	Max. HP In	.54	1.24	2.15	4.34	10.39	—
		Max. Torque Out (In. lbs.)	296	702	1284	2615	6247	—
15	77	Max. HP In	.45	1.09	1.84	3.78	9.18	9.04
		Max. Torque Out (In. lbs.)	271	710	1246	2637	6452	6329
18	64	Max. HP In	.42	.95	1.63	3.46	7.97	—
		Max. Torque Out (In. lbs.)	213	720	1330	2859	6481	—
20	58	Max. HP In	.39	.87	1.50	3.00	—	7.52
		Max. Torque Out (In. lbs.)	301	721	1307	2597	—	6770
25	46	Max. HP In	.33	.75	1.21	2.55	6.26	—
		Max. Torque Out (In. lbs.)	297	743	1282	2772	6792	—
30	39	Max. HP In	.33	.62	1.00	2.26	5.15	5.14
		Max. Torque Out (In. lbs.)	295	675	1173	2832	6273	6241
40	29	Max. HP In	.25	.53	.84	1.80	4.24	4.50
		Max. Torque Out (In. lbs.)	315	720	1211	2699	6591	6898
50	23	Max. HP In	.19	.41	.75	1.55	3.73	4.13
		Max. Torque Out (In. lbs.)	272	646	1234	2729	6843	7589
60	19	Max. HP In	.13	.28	.58	—	3.22	—
		Max. Torque Out (In. lbs.)	197	491	1113	—	6768	—

## 860 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE					
			WM12	WM16	WM21	WM28	WM40	H419
Refer to the following pages for Selection Information on each size.			G2-14	G2-16	G2-18	G2-20	G2-22	G2-24
5	172	Max. HP In	.80	1.87	3.95	5.79	18.10	—
		Max. Torque Out (In. lbs.)	248	613	1321	1931	6163	—
7.5	115	Max. HP In	.50	1.00	2.48	4.74	13.46	—
		Max. Torque Out (In. lbs.)	220	469	1198	2314	6723	—
10	86	Max. HP In	.55	1.21	2.17	4.45	10.80	—
		Max. Torque Out (In. lbs.)	324	743	1364	2869	6911	—
12.7	68	Max. HP In	.43	1.08	1.86	3.88	8.49	—
		Max. Torque Out (In. lbs.)	316	809	1478	3128	6743	—
15	57	Max. HP In	.38	.93	1.59	3.33	7.50	8.02
		Max. Torque Out (In. lbs.)	308	811	1423	3064	6936	7416
18	48	Max. HP In	.34	.82	1.40	2.89	6.48	—
		Max. Torque Out (In. lbs.)	338	812	1499	3146	6950	—
20	43	Max. HP In	.33	.76	1.27	2.55	—	6.83
		Max. Torque Out (In. lbs.)	341	824	1502	2967	—	8121
25	34	Max. HP In	.23	.58	.92	2.00	5.14	—
		Max. Torque Out (In. lbs.)	292	759	1283	2798	7171	—
30	29	Max. HP In	.26	.55	.84	2.00	4.19	5.00
		Max. Torque Out (In. lbs.)	338	769	1322	3190	6725	7741
40	22	Max. HP In	.22	.47	.75	1.54	3.49	4.02
		Max. Torque Out (In. lbs.)	352	818	1390	2989	7053	7986
50	17	Max. HP In	.15	.33	.66	1.35	3.04	3.41
		Max. Torque Out (In. lbs.)	267	659	1430	3046	7215	7976
60	14	Max. HP In	.10	.21	.44	—	2.64	—
		Max. Torque Out (In. lbs.)	194	481	1077	—	7173	—



# Rating Tables — MASTER XL Right Angle Reducers Combination Reduction

## 2500 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE				
			CM12	CM16	CM21	CM28	CM40
Refer to the following pages for Selection Information on each size.			G2-30	G2-32	G2-34	G2-36	G2-38
10	250	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	12.98 3003	28.44 6622
12.7	207	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	12.98 3617	— —
15	167	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	9.79 3350	22.90 7883
18	138	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	9.79 4035	— —
20	125	Max. HP In Max. Torque Out (In. lbs.)	1.51 663	3.75 1726	6.52 3059	11.21 5176	23.20 10,745
25	104	Max. HP In Max. Torque Out (In. lbs.)	1.51 793	3.78 2050	6.52 3604	11.30 6220	23.20 12,356
30	83	Max. HP In Max. Torque Out (In. lbs.)	1.23 788	2.78 1869	5.00 3429	10.00 6700	20.4 14,006
36	69	Max. HP In Max. Torque Out (In. lbs.)	1.23 939	2.78 2202	5.00 4039	10.00 7988	20.4 16,341
40	63	Max. HP In Max. Torque Out (In. lbs.)	1.00 805	2.28 2008	3.79 3415	8.06 7258	17.6 15,925
50	49	Max. HP In Max. Torque Out (In. lbs.)	.82 838	1.88 2036	3.28 3701	6.86 7713	15.5 17,757
60	42	Max. HP In Max. Torque Out (In. lbs.)	.82 998	1.88 2398	3.28 4360	6.86 9196	15.5 20,489
70	35	Max. HP In Max. Torque Out (In. lbs.)	.67 926	1.67 2468	2.77 4260	5.75 8904	14.5 22,118
86	29	Max. HP In Max. Torque Out (In. lbs.)	.61 1000	1.37 2351	2.47 4544	5.14 9434	12.6 22,220
101	25	Max. HP In Max. Torque Out (In. lbs.)	.50 865	1.09 2196	2.00 4051	3.83 7858	10.16 20,814
121	21	Max. HP In Max. Torque Out (In. lbs.)	.40 758	.90 1921	1.50 3413	3.33 7966	8.74 19,432
144	17	Max. HP In Max. Torque Out (In. lbs.)	.40 903	.90 2264	1.50 4021	3.33 9497	8.74 22,509
162	15	Max. HP In Max. Torque Out (In. lbs.)	.36 844	.78 2080	1.24 3552	2.51 7302	6.70 20,231
192	13	Max. HP In Max. Torque Out (In. lbs.)	.36 1005	.78 2464	1.24 4184	2.51 8706	6.70 23,392
240	10	Max. HP In Max. Torque Out (In. lbs.)	.30 987	.67 2528	1.05 4196	2.20 9152	5.69 23,721
288	8.7	Max. HP In Max. Torque Out (In. lbs.)	— —	.55 2340	.93 4306	— —	5.00 23,792
336	7.4	Max. HP In Max. Torque Out (In. lbs.)	.13 477	— —	— —	— —	— —

1750 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE				
			CM12	CM16	CM21	CM28	CM40
Refer to the following pages for Selection Information on each size.			G2-30	G2-32	G2-34	G2-36	G2-38
10	175	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	11.25 3688	24.64 8187
12.7	138	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	11.25 4442	— —
15	117	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	8.49 4119	20.30 9800
18	97	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	8.49 4962	— —
20	87	Max. HP In Max. Torque Out (In. lbs.)	1.23 772	3.37 2206	5.43 3610	10.41 6818	23.70 15,659
25	70	Max. HP In Max. Torque Out (In. lbs.)	1.23 923	3.00 2277	5.41 4238	10.50 8199	23.70 18,008
30	58	Max. HP In Max. Torque Out (In. lbs.)	1.00 881	2.00 1868	4.08 3966	8.49 8239	20.00 19,599
36	48	Max. HP In Max. Torque Out (In. lbs.)	.96 1039	2.00 2201	4.08 4671	8.12 9389	20.00 22,866
40	44	Max. HP In Max. Torque Out (In. lbs.)	.80 934	1.91 2360	3.14 3973	6.61 8393	16.70 21,524
50	35	Max. HP In Max. Torque Out (In. lbs.)	.69 1024	1.54 2353	2.69 4297	5.64 8996	13.40 21,870
60	29	Max. HP In Max. Torque Out (In. lbs.)	.61 1067	1.43 2568	2.69 5062	5.64 10,725	13.40 25,234
70	25	Max. HP In Max. Torque Out (In. lbs.)	.54 1056	1.21 2526	2.26 4869	5.00 10,506	11.89 25,783
86	20	Max. HP In Max. Torque Out (In. lbs.)	.46 1060	1.05 2522	2.01 5182	4.15 10,793	10.12 23,356
101	17	Max. HP In Max. Torque Out (In. lbs.)	.41 1062	.90 2558	1.64 4729	3.16 9098	7.87 22,851
121	14	Max. HP In Max. Torque Out (In. lbs.)	.36 964	.75 2227	1.21 3940	2.72 9130	6.45 21,295
144	12	Max. HP In Max. Torque Out (In. lbs.)	.34 1056	.75 2624	1.21 4642	2.72 10,885	6.45 24,667
162	11	Max. HP In Max. Torque Out (In. lbs.)	.31 1023	.64 2374	1.03 4087	2.14 8605	5.36 22,384
192	9	Max. HP In Max. Torque Out (In. lbs.)	.28 1065	.60 2647	1.03 4814	2.14 10,260	5.36 25,882
240	7	Max. HP In Max. Torque Out (In. lbs.)	.24 1065	.52 2667	.88 4879	1.81 10,393	4.50 25,932
288	6	Max. HP In Max. Torque Out (In. lbs.)	— —	.40 2324	.79 5004	— —	3.96 26,228
336	5	Max. HP In Max. Torque Out (In. lbs.)	.10 460	— —	— —	— —	— —



# Rating Tables — MASTER XL Right Angle Reducers Combination Reduction

## 1160 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE				
			CM12	CM16	CM21	CM28	CM40
Refer to the following pages for Selection Information on each size.			G2-30	G2-32	G2-34	G2-36	G2-38
10	116	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	9.21 4519	20.42 10,160
12.7	91	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	9.21 5443	— —
15	77	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	6.69 4855	16.41 12,028
18	64	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	6.69 5848	— —
20	58	Max. HP In Max. Torque Out (In. lbs.)	1.00 886	2.48 2427	4.56 4544	8.98 8811	20.40 20,212
25	48	Max. HP In Max. Torque Out (In. lbs.)	.93 1036	2.11 2426	4.08 4785	7.98 9322	20.00 22,784
30	39	Max. HP In Max. Torque Out (In. lbs.)	.65 871	1.32 1868	3.28 4782	6.69 9710	16.40 24,056
36	32	Max. HP In Max. Torque Out (In. lbs.)	.65 1038	1.32 2201	3.18 5458	6.18 10,684	15.00 25,467
40	29	Max. HP In Max. Torque Out (In. lbs.)	.64 1117	1.51 2765	2.54 4810	5.47 10,347	13.20 25,186
50	23	Max. HP In Max. Torque Out (In. lbs.)	.53 1179	1.24 2794	2.16 5110	4.57 10,801	10.39 25,125
60	19	Max. HP In Max. Torque Out (In. lbs.)	.41 1059	1.00 2638	2.16 6019	4.50 12,677	9.59 26,716
70	16	Max. HP In Max. Torque Out (In. lbs.)	.37 1047	.83 2521	1.84 5845	3.87 12,588	8.28 26,557
86	13.5	Max. HP In Max. Torque Out (In. lbs.)	.31 1066	.75 2645	1.62 6196	3.46 13,359	7.50 27,036
101	11.5	Max. HP In Max. Torque Out (In. lbs.)	.31 1182	.70 2897	1.21 5103	2.55 10,867	6.26 26,623
121	9.6	Max. HP In Max. Torque Out (In. lbs.)	.29 1175	.62 2685	1.00 4670	2.26 11,100	5.15 24,590
144	8	Max. HP In Max. Torque Out (In. lbs.)	.23 1073	.54 2715	1.00 5502	2.26 13,235	5.00 27,344
162	7	Max. HP In Max. Torque Out (In. lbs.)	.25 1255	.53 2867	.84 4823	1.80 10,581	4.24 25,837
192	6	Max. HP In Max. Torque Out (In. lbs.)	.19 1079	.42 2663	.84 5681	1.80 12,616	3.94 27,688
240	4.8	Max. HP In Max. Torque Out (In. lbs.)	.16 1081	.37 2672	.75 5787	1.55 12,755	3.43 28,401
288	4	Max. HP In Max. Torque Out (In. lbs.)	— —	.28 2305	.58 5221	— —	3.00 27,658
336	3.5	Max. HP In Max. Torque Out (In. lbs.)	.06 463	— —	— —	— —	— —

# 860 RPM INPUT

Ratio	RPM Out	Rating Data	CASE SIZE				
			CM12	CM16	CM21	CM28	CM40
Refer to the following pages for Selection Information on each size.			G2-30	G2-32	G2-34	G2-36	G2-38
10	86	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	7.67 5026	18.06 12,054
12.7	68	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	7.67 6054	— —
15	57	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	5.04 4827	8.49 8253
18	48	Max. HP In Max. Torque Out (In. lbs.)	— —	— —	— —	5.04 5814	— —
20	43	Max. HP In Max. Torque Out (In. lbs.)	.80 989	1.87 2441	3.74 4977	7.40 9643	17.90 24,024
25	36	Max. HP In Max. Torque Out (In. lbs.)	.70 1029	1.57 2408	3.73 5848	6.56 10,235	16.30 24,989
30	29	Max. HP In Max. Torque Out (In. lbs.)	.50 876	1.00 1867	2.48 4770	5.04 9653	13.46 26,353
36	24	Max. HP In Max. Torque Out (In. lbs.)	.49 1044	1.00 2199	2.48 5618	5.04 11,510	11.46 26,122
40	22	Max. HP In Max. Torque Out (In. lbs.)	.55 1291	1.19 2909	2.17 5429	4.49 11,348	10.80 27,091
50	17	Max. HP In Max. Torque Out (In. lbs.)	.43 1257	1.00 2913	1.86 5882	3.88 12,260	8.49 27,119
60	14	Max. HP In Max. Torque Out (In. lbs.)	.30 1034	.76 2669	1.72 6399	3.68 13,854	7.94 29,230
70	12	Max. HP In Max. Torque Out (In. lbs.)	.28 1048	.65 2628	1.50 6287	3.33 14,319	6.33 26,795
86	10	Max. HP In Max. Torque Out (In. lbs.)	.24 1067	.58 2648	1.24 6211	2.89 14,701	5.53 26,707
101	8.5	Max. HP In Max. Torque Out (In. lbs.)	.23 1182	.53 2900	.92 5107	1.96 10,970	5.14 28,110
121	7	Max. HP In Max. Torque Out (In. lbs.)	.26 1345	.52 2887	.84 5263	2.00 12,505	4.19 26,362
144	6	Max. HP In Max. Torque Out (In. lbs.)	.18 1062	.41 2646	.84 6200	2.00 14,910	3.81 27,692
162	5	Max. HP In Max. Torque Out (In. lbs.)	.22 1401	.42 2893	.75 5536	1.54 11,716	3.49 27,647
192	4.5	Max. HP In Max. Torque Out (In. lbs.)	.14 1069	.33 2630	.72 6298	1.54 13,969	3.10 28,289
240	3.6	Max. HP In Max. Torque Out (In. lbs.)	.13 1081	.28 2660	.63 6444	1.35 14,236	2.60 27,778
288	3	Max. HP In Max. Torque Out (In. lbs.)	— —	.21 2309	.44 5053	— —	2.29 28,000
336	2.6	Max. HP In Max. Torque Out (In. lbs.)	.05 447	— —	— —	— —	— —



# MASTER XL Size WM12

## Single Reduction, 3-Piece Coupled C-face Reducer

### ORDER INFORMATION

Case Size	List Price	Discount Symbol	Wt. (lbs.)
	56 Frame		
WM12A	\$423	D-46b	22
WM12B	482		25
WM12F	482		25
WM12J	503		28

### ORDER NUMBERS (1)

Ratio	Frame 56C
5	M60800
7.5	M60801
10	M60802
12.7	M60803
15	M60804
18	M60805
20	M60806
25	M60807
30	M60808
40	M60809
50	M60810

(1) Add mounting designation to this number if other than "K." Order numbers are for K shaft position. Order by description all others.

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in standard, XT, or Easy Clean gearbox with integral cast foot, flange, or multimount. Mark order: RED BARON.

### Super Cycle Delivery

MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for a parts check.

### OPTIONS

Description/Part Number	List Price
Double Shaft (LK Suffix)	\$41 List
Easy Clean and XT	\$88 List
Mobil SHC634 or USDA H1 Food Grade Lubricant.	\$10 List

### RATING TABLE

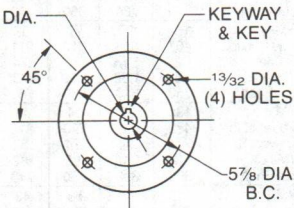
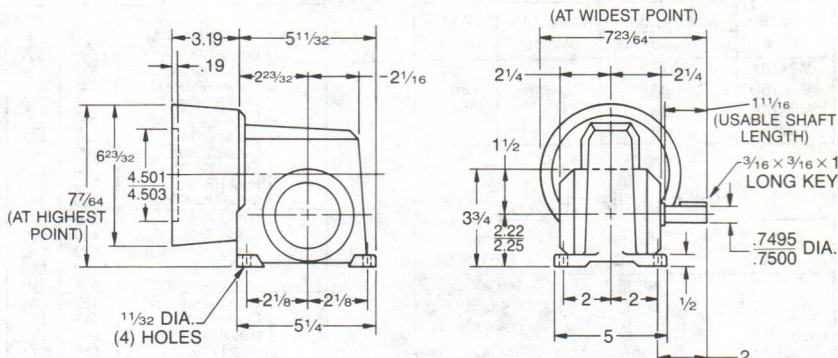
Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860
5	Output RPM	500	350	232	172
	Output Torque, in.lb.	166	194	222	248
	Output HP (Max.)	1.32	1.08	.82	.68
	Input HP (Max.)	1.51	1.23	.95	.88
	OHL Output Shaft	455	430	415	390
7.5	Output RPM	333	233	155	115
	Output Torque, in.lb.	198	221	219	220
	Output HP (Max.)	1.05	.82	.54	.40
	Input HP (Max.)	1.23	1.00	.65	.50
	OHL Output Shaft	430	410	410	415
10	Output RPM	250	175	116	86
	Output Torque, in.lb.	202	234	280	324
	Output HP (Max.)	.80	.65	.52	.44
	Input HP (Max.)	1.00	.80	.64	.55
	OHL Output Shaft	430	405	365	320
12.7	Output RPM	197	138	91	68
	Output Torque, in.lb.	210	257	296	316
	Output HP (Max.)	.66	.56	.43	.34
	Input HP (Max.)	.82	.69	.54	.43
	OHL Output Shaft	420	385	350	330
15	Output RPM	167	117	77	57
	Output Torque, in.lb.	195	227	271	308
	Output HP (Max.)	.52	.42	.33	.28
	Input HP (Max.)	.67	.55	.45	.38
	OHL Output Shaft	430	410	375	340
18	Output RPM	139	97	64	48
	Output Torque, in.lb.	211	261	313	338
	Output HP (Max.)	.46	.40	.32	.26
	Input HP (Max.)	.61	.53	.42	.34
	OHL Output Shaft	420	380	335	300
20	Output RPM	125	87	58	43
	Output Torque, in.lb.	203	245	301	341
	Output HP (Max.)	.40	.34	.28	.23
	Input HP (Max.)	.55	.50	.39	.33
	OHL Output Shaft	425	400	350	295
25	Output RPM	100	70	46	34
	Output Torque, in.lb.	217	266	297	292
	Output HP (Max.)	.34	.30	.22	.16
	Input HP (Max.)	.50	.41	.33	.23
	OHL Output Shaft	410	380	350	350
30	Output RPM	83	58	39	29
	Output Torque, in.lb.	190	242	295	338
	Output HP (Max.)	.25	.22	.18	.15
	Input HP (Max.)	.40	.36	.33	.26
	OHL Output Shaft	435	395	350	300
40	Output RPM	63	44	29	22
	Output Torque, in.lb.	212	257	315	352
	Output HP (Max.)	.21	.18	.14	.12
	Input HP (Max.)	.36	.31	.25	.22
	OHL Output Shaft	420	385	330	275
50	Output RPM	50	35	23	17
	Output Torque, in.lb.	208	257	272	267
	Output HP (Max.)	.16	.14	.10	.07
	Input HP (Max.)	.30	.27	.19	.15
	OHL Output Shaft	420	385	360	380
60	Output RPM	42	29	19	14
	Output Torque, in.lb.	210	204	197	194
	Output HP (Max.)	.14	.09	.06	.04
	Input HP (Max.)	.27	.19	.13	.10
	OHL Output Shaft	420	425	430	430

OHL output shaft value shown is lbs. (maximum allowed).

References	Nomenclature p. G2-7	Inst./Maint. p. G2-29	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-88 & G2-89
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## DIMENSIONS

VM12A



Frame	U		Keyway	Uses Key
	Min.	Max.		
48Y, 56C	.626	.627	3/16 x 3/32	3/16 x 3/16 x 1 1/4
140TC, 160ATC	.876	.877		

**Note—**  
Multimount  
Dimensions p. G2-26  
J Mount  
Dimensions p. G2-27  
Flange Mount  
Dimensions p. G2-28

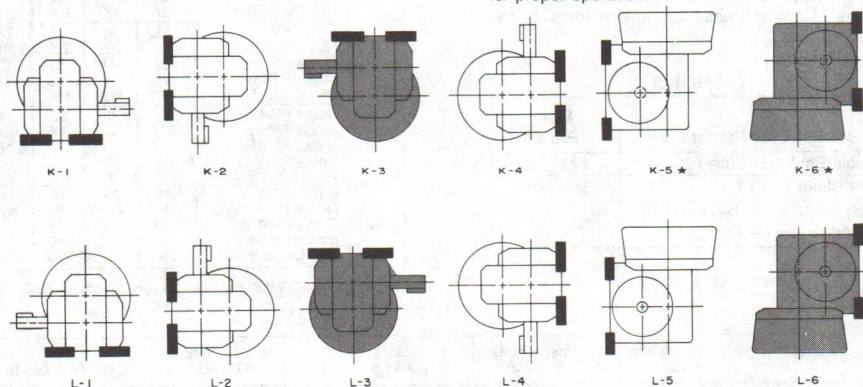
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

Countershaft is located on the concealed side of these units.

### INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.





# MASTER XL Size WM16

## Single Reduction, 3-Piece Coupled C-face Reducer

### ORDER INFORMATION

Case Size	List Price	Discount Symbol	Wt. (lbs.)
	56/140 Frame		
WM16A	\$518	D-46b	35
WM16B	583		40
WM16F	588		39
WM16J	602		41

### ORDER NUMBERS (1)

Ratio	Frame 56C	Frame 140TC
5	M60812	M60848
7.5	M60813	M60849
10	M60814	M60850
12.7	M60815	M60851
15	M60816	M60852
18	M60817	M60853
20	M60818	M60854
25	M60819	M60855
30	M60820	M60856
40	M60821	M60857
50	M60822	M60858
60	M60823	M60859

(1) Add mounting designation to this number if other than "K." Order numbers are for K shaft position. Order by description all others.

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in standard, XT, or Easy Clean gearcase with integral cast foot, flange, or multimount. Mark order: RED BARON.

### Super Cycle Delivery

MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for a parts check.

### OPTIONS

Description/Part Number	List Price
Double Shaft (LK Suffix)	\$41 List
Easy Clean and XT	\$95 List
Mobil SHC634 or USDA H1 Food Grade Lubricant	\$10 List

### RATING TABLE

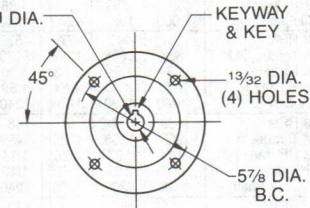
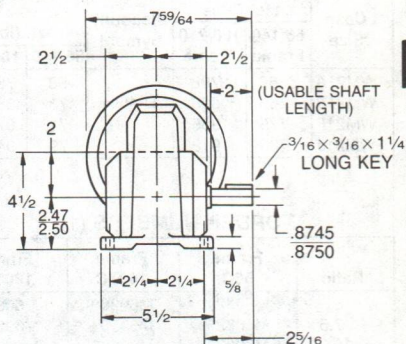
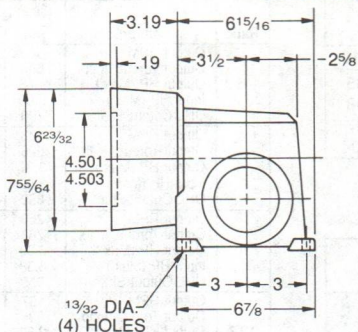
Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860
5	Output RPM	500	350	232	172
	Output Torque, in.lb.	303	439	610	613
	Output HP (Max.)	2.41	2.44	2.25	1.67
	Input HP (Max.)	2.65	2.68	2.48	1.87
	OHL Output Shaft	560	590	630	700
7.5	Output RPM	333	233	155	115
	Output Torque, in.lb.	365	469	669	469
	Output HP (Max.)	1.93	1.74	1.15	.85
	Input HP (Max.)	2.18	2.00	1.32	1.00
	OHL Output Shaft	630	680	790	860
10	Output RPM	250	175	116	86
	Output Torque, in.lb.	436	583	695	743
	Output HP (Max.)	1.73	1.62	1.28	1.02
	Input HP (Max.)	2.00	1.88	1.51	1.21
	OHL Output Shaft	660	710	790	830
12.7	Output RPM	197	138	91	68
	Output Torque, in.lb.	449	591	702	809
	Output HP (Max.)	1.41	1.30	1.02	.87
	Input HP (Max.)	1.66	1.54	1.24	1.08
	OHL Output Shaft	700	760	850	760
15	Output RPM	167	117	77	57
	Output Torque, in.lb.	467	618	710	811
	Output HP (Max.)	1.24	1.14	.87	.74
	Input HP (Max.)	1.50	1.38	1.09	.93
	OHL Output Shaft	750	810	850	760
18	Output RPM	139	97	64	48
	Output Torque, in.lb.	482	608	720	812
	Output HP (Max.)	1.06	.94	.74	.62
	Input HP (Max.)	1.32	1.18	.95	.82
	OHL Output Shaft	800	830	860	740
20	Output RPM	125	87	58	43
	Output Torque, in.lb.	508	601	721	824
	Output HP (Max.)	1.01	.83	.66	.56
	Input HP (Max.)	1.26	1.08	.87	.76
	OHL Output Shaft	820	900	860	740
25	Output RPM	100	70	46	34
	Output Torque, in.lb.	532	612	743	759
	Output HP (Max.)	.84	.68	.55	.41
	Input HP (Max.)	1.09	.90	.75	.58
	OHL Output Shaft	880	930	840	810
30	Output RPM	83	58	39	29
	Output Torque, in.lb.	483	559	675	769
	Output HP (Max.)	.64	.52	.41	.35
	Input HP (Max.)	.90	.75	.62	.55
	OHL Output Shaft	920	960	920	810
40	Output RPM	63	44	29	22
	Output Torque, in.lb.	523	596	720	818
	Output HP (Max.)	.52	.41	.33	.28
	Input HP (Max.)	.78	.64	.53	.47
	OHL Output Shaft	960	950	860	740
50	Output RPM	50	35	23	17
	Output Torque, in.lb.	539	620	646	659
	Output HP (Max.)	.43	.34	.24	.18
	Input HP (Max.)	.67	.57	.41	.33
	OHL Output Shaft	960	940	940	930
60	Output RPM	42	29	19	14
	Output Torque, in.lb.	499	496	491	481
	Output HP (Max.)	.33	.23	.15	.11
	Input HP (Max.)	.55	.40	.28	.21
	OHL Output Shaft	960	960	960	960

OHL output shaft value shown is lbs. (maximum allowed).

References	Nomenclature p. G2-7	Inst./Maint. p. G2-29	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-88 & G2-89
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VM16A

## DIMENSIONS



Frame	U		Keyway	Uses Key
	Min.	Max.		
48Y, 56C	.626	.627	3/16 x 3/32	3/16 x 3/16 x 1 1/4
140TC, 160ATC	.876	.877		

**Note—**  
Multimount  
Dimensions p. G2-26  
J Mount  
Dimensions p. G2-27  
Flange Mount  
Dimensions p. G2-28

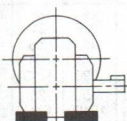
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

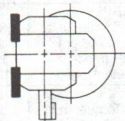
\*Countershaft is located on the concealed side of these units.

### INCLINED MOUNTING

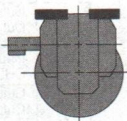
All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.



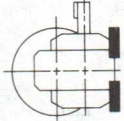
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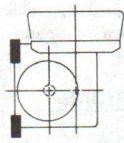
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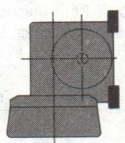
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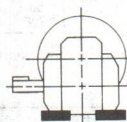
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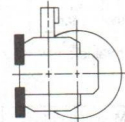
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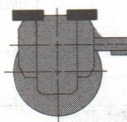
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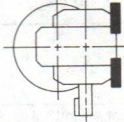
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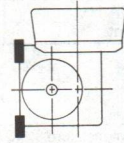
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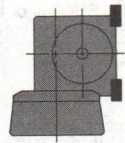
L-3



L-4



L-5



L-6



# MASTER XL Size WM21

## Single Reduction, 3-Piece Coupled C-face Reducer

### ORDER INFORMATION

Case Size	List Price		Discount Symbol	Wt. (lbs.)		
	56/140 Frame	180/210 Frame		56/140	180	210
WM21A	\$668	\$798	D-46b	58	75	85
WM21B	768	898		73	88	98
WM21F	775	905		71	87	97
WM21J	783	913		79	94	104

### ORDER NUMBERS (1)

Ratio	Frame 56C	Frame 140TC	Frame 180TC
5	M60824	M60860	M60884
7.5	M60825	M60861	M60885
10	M60826	M60862	M60886
12.7	M60827	M60863	M60887
15	M60828	M60864	M60888
18	M60829	M60865	M60889
20	M60830	M60866	M60890
25	M60831	M60867	M60891
30	M60832	M60868	M60892
40	M60833	M60869	M60893
50	M60834	M60870	M60894
60	M60835	M60871	M60895

(1) Add mounting designation to this number if other than "K." Order numbers are for K shaft position. Order by description all others.

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in standard, XT, or Easy Clean gearcase with integral cast foot, flange, or multimount. Mark order: RED BARON.

### Super Cycle Delivery

MASTER offers 48 hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for a parts check.

### OPTIONS

Description/Part Number	List Price
Double Shaft (LK Suffix)	\$ 49 List
Easy Clean and XT	\$110 List
Mobil SHC634 or USDA H1 Food Grade Lubricant	\$ 10 List

### RATING TABLE

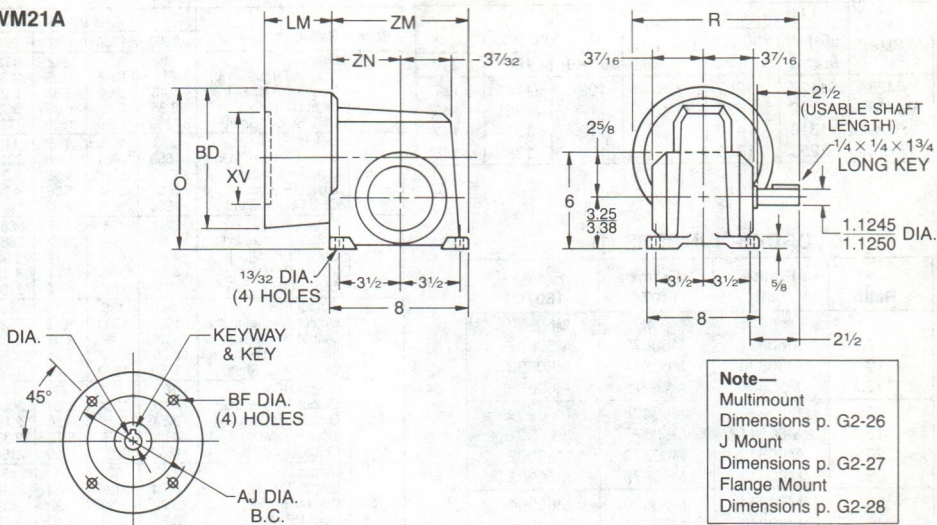
Ratio	Rating Data	RPM INPUT			
		2500	1750	1180	860
5	Output RPM	500	350	232	172
	Output Torque, in.lb.	583	770	1094	1321
	Output HP (Max.)	4.63	4.28	4.03	3.61
	Input HP (Max.)	5.00	4.62	4.37	3.95
	OHL Output Shaft	790	850	900	960
7.5	Output RPM	333	233	155	115
	Output Torque, in.lb.	626	894	1201	1198
	Output HP (Max.)	3.31	3.31	2.95	2.18
	Input HP (Max.)	3.66	3.67	3.28	2.48
	OHL Output Shaft	880	960	1050	1150
10	Output RPM	250	175	116	86
	Output Torque, in.lb.	763	949	1208	1364
	Output HP (Max.)	3.03	2.64	2.23	1.86
	Input HP (Max.)	3.38	3.00	2.54	2.17
	OHL Output Shaft	950	1050	1150	1200
12.7	Output RPM	197	138	91	68
	Output Torque, in.lb.	895	1079	1284	1478
	Output HP (Max.)	2.80	2.37	1.87	1.59
	Input HP (Max.)	3.16	2.69	2.15	1.86
	OHL Output Shaft	1000	1080	1200	1240
15	Output RPM	167	117	77	57
	Output Torque, in.lb.	885	1038	1246	1423
	Output HP (Max.)	2.34	1.92	1.53	1.30
	Input HP (Max.)	2.70	2.26	1.84	1.59
	OHL Output Shaft	1080	1180	1270	1240
18	Output RPM	139	97	64	48
	Output Torque, in.lb.	969	1105	1330	1499
	Output HP (Max.)	2.14	1.71	1.36	1.14
	Input HP (Max.)	2.47	2.01	1.63	1.40
	OHL Output Shaft	1100	1200	1260	1240
20	Output RPM	125	87	58	43
	Output Torque, in.lb.	940	1096	1307	1502
	Output HP (Max.)	1.87	1.52	1.20	1.03
	Input HP (Max.)	2.19	1.82	1.50	1.27
	OHL Output Shaft	1150	1250	1260	1240
25	Output RPM	100	70	46	34
	Output Torque, in.lb.	1017	1188	1282	1283
	Output HP (Max.)	1.62	1.32	.94	.70
	Input HP (Max.)	2.00	1.63	1.21	.92
	OHL Output Shaft	1200	1270	1260	1260
30	Output RPM	83	58	39	29
	Output Torque, in.lb.	857	990	1173	1322
	Output HP (Max.)	1.13	.92	.72	.60
	Input HP (Max.)	1.50	1.21	1.00	.84
	OHL Output Shaft	1300	1290	1270	1260
40	Output RPM	63	44	29	22
	Output Torque, in.lb.	892	1026	1211	1390
	Output HP (Max.)	.88	.71	.56	.47
	Input HP (Max.)	1.24	1.03	.84	.75
	OHL Output Shaft	1300	1290	1270	1250
50	Output RPM	50	35	23	17
	Output Torque, in.lb.	895	1040	1234	1430
	Output HP (Max.)	.71	.58	.45	.39
	Input HP (Max.)	1.05	.88	.75	.66
	OHL Output Shaft	1300	1290	1270	1250
60	Output RPM	42	29	19	14
	Output Torque, in.lb.	918	1067	1113	1077
	Output HP (Max.)	.61	.49	.34	.24
	Input HP (Max.)	.93	.79	.58	.44
	OHL Output Shaft	1300	1290	1280	1280

OHL output shaft value shown is lbs. (maximum allowed).

References	Nomenclature p. G2-7	Inst./Maint. p. G2-29	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-88 & G2-89
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VM21A

## DIMENSIONS



Frame	AJ	BD	BF	LM	U		Keyway	XV	ZM	ZN	O	R	Uses Key
					Min.	Max.							
48YC, 56C	5/8	6 23/32	1 3/32	3 3/16	.626	.627	3/16 x 3/32	4.501/4.503	8 1/4	4 1/4	9 23/64	9 7/16	3/16 x 3/16 x 1 1/4
140TC, 160ATC	5/8	6 23/32	1 3/32	3 3/16	.876	.877	3/16 x 3/32	4.501/4.503	8 1/4	4 1/4	9 23/64	9 7/16	3/16 x 3/16 x 1 1/4
180TC, 180ATC	7/4	9	1 7/32	4 5/32	1.126	1.127	1/4 x 1/8	8.500/8.502	8 15/16	4 15/16	10 39/64	10 39/64	1/4 x 1/4 x 1 3/4

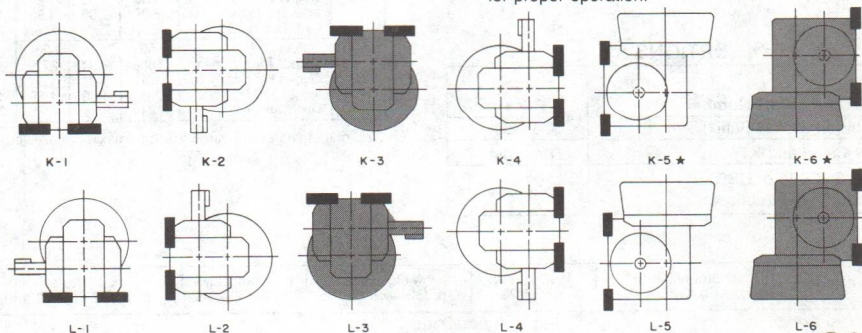
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions NOT recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

## INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.



G2-19



# MASTER XL Size WM 28

## Single Reduction, 3-Piece Coupled C-face Reducer

### ORDER INFORMATION

Case Size	List Price		Discount Symbol	Wt. (lbs.)		
	56/140 Frame	180/210 Frame		56/140	180	210
WM28A	\$1127	\$1267	D-46b	102	117	127
WM28B	1292	1432		117	135	145
WM28F	1318	1458		119	137	147
WM28J	1253	1393		120	138	148

### ORDER NUMBERS (1)

Ratio	Frame 56C	Frame 140TC	Frame 180TC
5	M60836	M60872	M60896
7.5	M60837	M60873	M60897
10	M60838	M60874	M60898
12.7	M60839	M60875	M60899
15	M60840	M60876	M60900
18	M60841	M60877	M60901
20	M60842	M60878	M60902
25	M60843	M60879	M60903
30	M60844	M60880	M60904
40	M60845	M60881	M60905
50	M60846	M60882	M60906

(1) Add mounting designation to this number if other than "K." Order numbers are for K shaft position. Order by description all others.

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in standard, XT, or Easy Clean gearcase with integral cast foot, flange or multimount. Mark order: RED BARON.

### Super Cycle Delivery

MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for a parts check.

### OPTIONS

Description/Part Number	List Price
Double Shaft (LK Suffix)	\$ 63 List
Easy Clean and XT	\$113 List
Mobil SHC634 or USDA H1 Food Grade Lubricant	\$ 20 List

### RATING TABLE

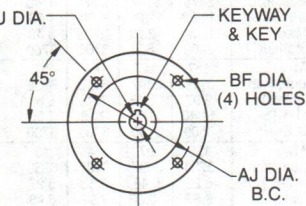
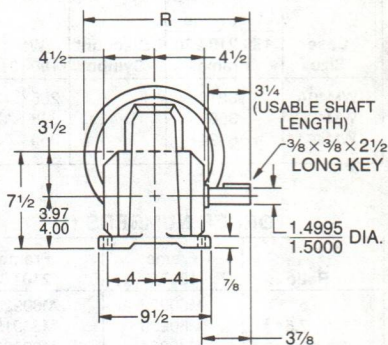
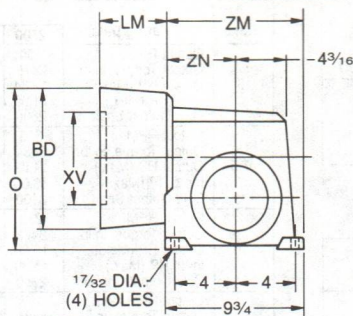
Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860
5	Output RPM	500	350	232	172
	Output Torque, in.lb.	810	1096	1583	193
	Output HP (Max.)	6.43	6.09	5.83	5.2
	Input HP (Max.)	6.95	6.61	6.35	5.7
	OHL Output Shaft	1360	1480	1630	173
7.5	Output RPM	333	233	155	115
	Output Torque, in.lb.	1059	1461	1866	231
	Output HP (Max.)	5.60	5.41	4.58	4.2
	Input HP (Max.)	6.13	5.94	5.06	4.7
	OHL Output Shaft	1500	1650	1800	190
10	Output RPM	250	175	116	86
	Output Torque, in.lb.	1252	1644	2268	286
	Output HP (Max.)	4.97	4.57	4.18	3.92
	Input HP (Max.)	5.50	5.10	4.71	4.45
	OHL Output Shaft	1600	1750	1950	210
12.7	Output RPM	197	138	91	68
	Output Torque, in.lb.	1392	1980	2615	312
	Output HP (Max.)	4.36	4.34	3.80	3.37
	Input HP (Max.)	5.00	5.00	4.34	3.88
	OHL Output Shaft	1750	1850	2100	215
15	Output RPM	167	117	77	57
	Output Torque, in.lb.	1337	1754	2637	306
	Output HP (Max.)	3.54	3.25	3.24	2.75
	Input HP (Max.)	4.08	3.79	3.78	3.33
	OHL Output Shaft	1850	2000	2200	215
18	Output RPM	139	97	64	48
	Output Torque, in.lb.	1494	2127	2859	314
	Output HP (Max.)	3.29	3.28	2.92	2.35
	Input HP (Max.)	3.84	3.83	3.46	2.85
	OHL Output Shaft	1900	2100	2170	215
20	Output RPM	125	87	58	43
	Output Torque, in.lb.	1416	1873	2597	296
	Output HP (Max.)	2.81	2.60	2.39	2.03
	Input HP (Max.)	3.36	3.15	3.00	2.55
	OHL Output Shaft	2250	2230	2290	215
25	Output RPM	100	70	46	34
	Output Torque, in.lb.	1642	2192	2772	279
	Output HP (Max.)	2.61	2.44	2.04	1.53
	Input HP (Max.)	3.16	3.00	2.55	2.00
	OHL Output Shaft	2100	2200	2180	2180
30	Output RPM	83	58	39	29
	Output Torque, in.lb.	1702	2311	2832	319
	Output HP (Max.)	2.25	2.14	1.74	1.45
	Input HP (Max.)	2.81	2.70	2.26	2.00
	OHL Output Shaft	2200	2200	2180	2130
40	Output RPM	63	44	29	22
	Output Torque, in.lb.	1537	1993	2699	298
	Output HP (Max.)	1.53	1.38	1.24	1.02
	Input HP (Max.)	2.09	2.00	1.80	1.54
	OHL Output Shaft	2250	2200	2180	2150
50	Output RPM	50	35	23	17
	Output Torque, in.lb.	1688	2211	2729	304
	Output HP (Max.)	1.34	1.23	1.01	.83
	Input HP (Max.)	2.00	1.80	1.55	1.35
	OHL Output Shaft	2240	2200	2180	2150

OHL output shaft value shown is lbs. (maximum allowed).

References	Nomenclature p. G2-7	Inst./Maint. p. G2-29	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-88 & G2-89
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WM28A

## DIMENSIONS



**Note—**  
Multimount  
Dimensions p. G2-26  
J Mount  
Dimensions p. G2-27  
Flange Mount  
Dimensions p. G2-28

Frame	AJ	BD	BF	LM	U		Keyway	XV	ZM	ZN	O	R	Uses Key
					Min.	Max.							
48YC, 56C	5 7/8	6 23/32	13/32	3 3/16	.626	.627	3/16 x 3/32	4.501/4.503	10 15/32	5 23/32	10 55/64	12 3/8	3/16 x 3/16 x 1 1/4
140TC, 160ATC	5 7/8	6 23/32	13/32	3 3/16	.876	.877	3/16 x 3/32	4.501/4.503	10 15/32	5 23/32	10 55/64	12 3/8	3/16 x 3/16 x 1 1/4
180TC, 180ATC	7 1/4	9	17/32	4 5/32	1.126	1.127	1/4 x 1/8	8.500/8.502	10 15/16	6 3/16	12 7/64	1 1/4 x 1/4 x 1 1/4	
210TC, 210ATC	7 1/4	9	17/32	4 21/32	1.376	1.377	5/16 x 5/32	8.500/8.502	10 15/16	6 3/16	12 7/64	1 1/4 x 1/4 x 1 1/4	

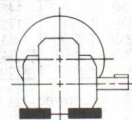
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

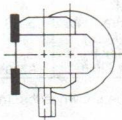
\*Countershaft is located on the concealed side of these units.

## INCLINED MOUNTING

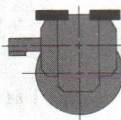
All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.



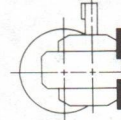
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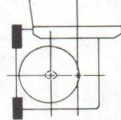
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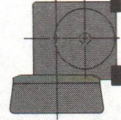
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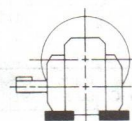
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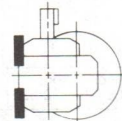
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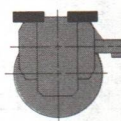
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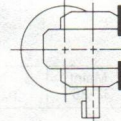
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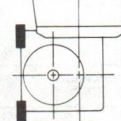
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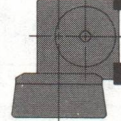
L-3



L-4



L-5



L-6

G2-21



# MASTER XL Size WM40

## Single Reduction, 3-Piece Coupled C-face Reducer

### ORDER INFORMATION

Case Size	List Price	Discount Symbol	Wt. (lbs.)	
	180/210/250 Frame		180	210/250
WM40A	\$3210	D-46b	286	296
WM40F	3589		338	348
WM40J	3324		366	376

### ORDER NUMBERS (1)

Ratio	Frame 180TC	Frame 210TC
5	M60922	M60923
7.5	M60908	M60915
10	M60924	M60925
12.7	M60909	M60916
15	M60910	M60917
18	M60911	M60918
25	M60912	M60919
30	M61220	M61221
40	M61222	M61223
50	M60913	M60920
60	M60914	M60921

(1) Add mounting designation to this number if other than "K." Order numbers are for K shaft position.

### OPTIONS

Description/Part Number	List Price
Double Shaft (LK Suffix)	\$ 99 List
Easy Clean and XT	\$126 List
Separate Reducer Construction	N/C
Mobil SHC634 or USDA H1 Food Grade Lubricant	\$ 50 List

### RATING TABLE

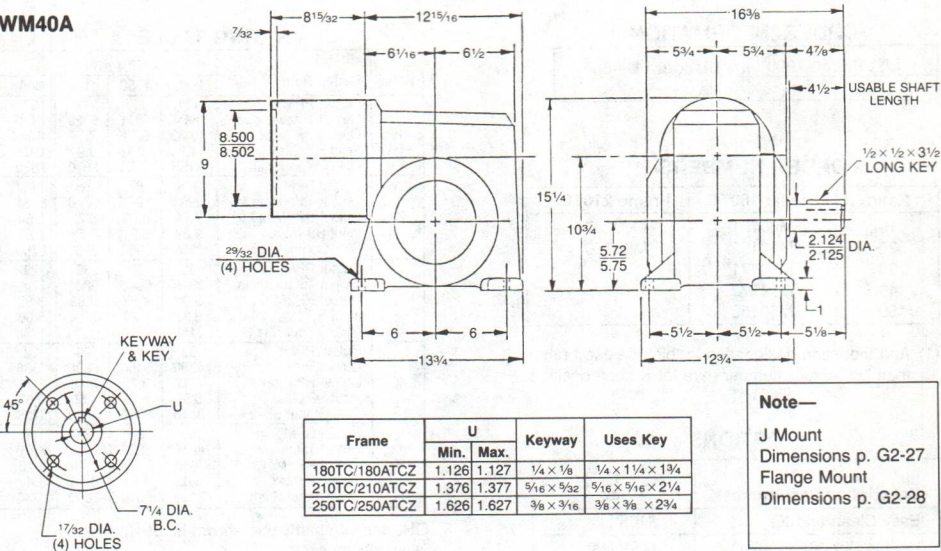
Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860
5	Output RPM	500	350	232	172
	Output Torque, in.lb.	2475	3875	5156	6163
	Output HP (Max.)	19.64	21.53	18.99	16.83
	Input HP (Max.)	21.00	23.00	20.40	18.10
	OHL Output Shaft	2600	2700	3000	3200
7.5	Output RPM	333	233	155	115
	Output Torque, in.lb.	3684	4485	6137	6723
	Output HP (Max.)	14.62	16.61	15.07	12.24
	Input HP (Max.)	16.00	18.00	16.40	13.46
	OHL Output Shaft	3100	3100	3300	3700
10	Output RPM	250	175	116	86
	Output Torque, in.lb.	3479	5253	6425	6911
	Output HP (Max.)	13.80	14.59	11.83	9.43
	Input HP (Max.)	15.30	16.00	13.20	10.80
	OHL Output Shaft	2750	3200	3700	3700
12.7	Output RPM	197	138	91	68
	Output Torque, in.lb.	3475	5147	6247	6743
	Output HP (Max.)	10.88	11.28	9.08	7.26
	Input HP (Max.)	12.30	12.70	10.39	8.49
	OHL Output Shaft	3400	3600	3700	3700
15	Output RPM	167	117	77	57
	Output Torque, in.lb.	3770	5497	6452	6936
	Output HP (Max.)	9.97	10.18	7.92	6.31
	Input HP (Max.)	11.40	11.60	9.18	7.50
	OHL Output Shaft	3500	3700	3700	3700
18	Output RPM	139	97	64	48
	Output Torque, in.lb.	3734	5497	6481	6950
	Output HP (Max.)	8.23	8.48	6.63	5.27
	Input HP (Max.)	9.67	10.00	7.97	6.48
	OHL Output Shaft	3800	3700	3700	3700
25	Output RPM	100	70	46	34
	Output Torque, in.lb.	4573	5829	6792	7171
	Output HP (Max.)	7.26	6.48	5.00	3.92
	Input HP (Max.)	8.80	7.87	6.26	5.14
	OHL Output Shaft	3700	3700	3700	3700
30	Output RPM	83	58	39	29
	Output Torque, in.lb.	4167	5433	6273	6725
	Output HP (Max.)	5.51	5.03	3.85	3.06
	Input HP (Max.)	6.98	6.45	5.15	4.19
	OHL Output Shaft	3800	3700	3700	3700
40	Output RPM	63	44	29	22
	Output Torque, in.lb.	4556	5710	6591	7053
	Output HP (Max.)	4.52	3.97	3.03	2.41
	Input HP (Max.)	5.95	5.36	4.24	3.49
	OHL Output Shaft	3800	3700	3700	3700
50	Output RPM	50	35	23	17
	Output Torque, in.lb.	5103	5848	6843	7215
	Output HP (Max.)	4.05	3.25	2.52	1.97
	Input HP (Max.)	5.55	4.59	3.73	3.04
	OHL Output Shaft	3700	3700	3700	3700
60	Output RPM	42	29	19	14
	Output Torque, in.lb.	5259	5797	6768	7173
	Output HP (Max.)	3.48	2.68	2.08	1.63
	Input HP (Max.)	5.00	3.96	3.22	2.64
	OHL Output Shaft	3700	3700	3700	3700

OHL output shaft value shown is lbs. (maximum allowed).

References	Nomenclature p. G2-7	Inst./Maint. p. G2-29	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-90 & G2-91
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WM40A

## DIMENSIONS



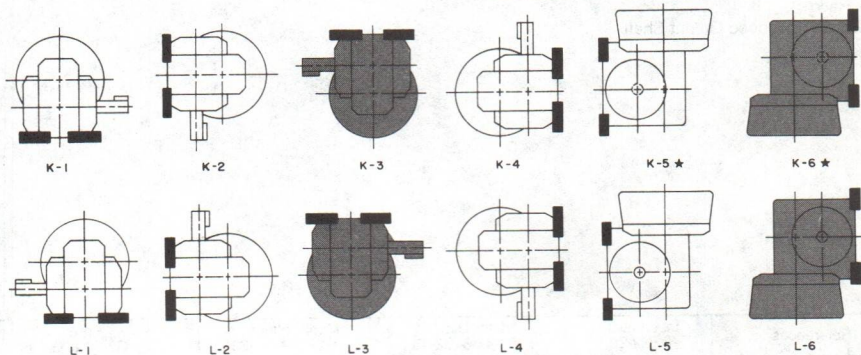
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

## INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.





# MASTER XL Size H419

## Close Coupled, Hollow Bore Input C-face Reducer

### ORDER INFORMATION

<b>List Price \$1900</b>	<b>Discount D-46b</b>
<b>Wt. 200 lbs.</b>	

### ORDER NUMBERS (1)

Ratio	Frame 180TC	Frame 210TC
15	M60151	M60157
20	M60152	M94770
30	M94771	
40	M94772	
50	M60153	

(1) Add mounting designation to this number if other than "K." Order numbers are for K shaft position.

### OPTIONS

Description/Part Number	List Price
Easy Clean and XT	\$105 List
Double Shaft (LK Suffix)	\$ 99 List
Mobil SHC634 or USDA H1 Food Grade Lubricant	\$ 50 List

To order by nomenclature specify (1) Motor Frame Size, (2) H419, (3) Ratio, (4) Shaft Output.

Example = 180TC/H419-30-LK

180TC Motor Frame Size

H419 Case Size (4.19" C.D.)

30:1 Ratio

LK Double Extended Output Shaft

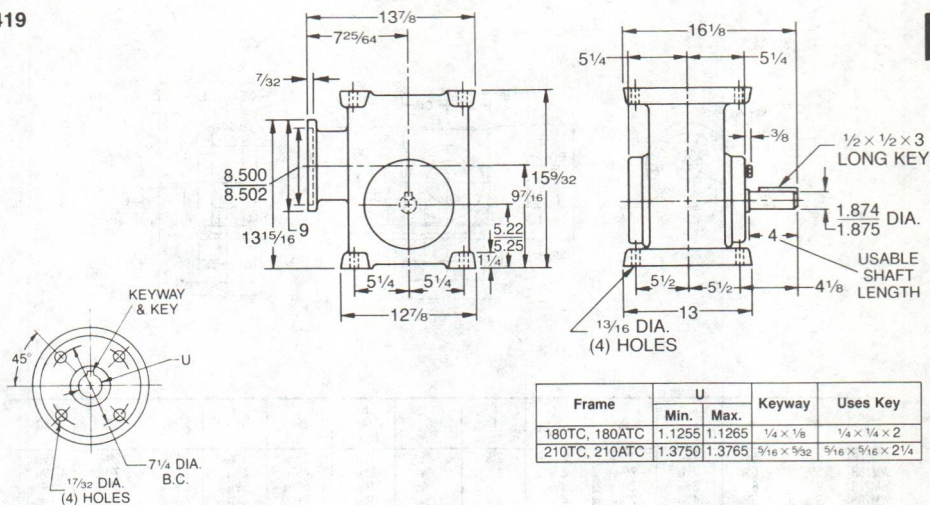
### RATING TABLE

Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860
15	Output RPM	167	117	77	57
	Output Torque, in.lb.	3904	4811	6329	7416
	Output HP (Max.)	10.33	8.91	7.77	6.75
	Input HP (Max.)	11.60	10.18	9.04	8.02
	OHL Output Shaft	3150	3050	2970	2830
20	Output RPM	125	87	58	43
	Output Torque, in.lb.	3903	4985	6770	8121
	Output HP (Max.)	7.74	6.92	6.23	5.54
	Input HP (Max.)	9.03	8.21	7.52	6.83
	OHL Output Shaft	3150	3050	2900	2750
30	Output RPM	83	58	39	29
	Output Torque, in.lb.	3819	5046	6241	7741
	Output HP (Max.)	5.05	4.67	3.83	3.52
	Input HP (Max.)	6.36	5.98	5.14	5.00
	OHL Output Shaft	3150	3070	2980	2770
40	Output RPM	63	44	29	22
	Output Torque, in.lb.	4300	5450	6898	7986
	Output HP (Max.)	4.27	3.79	3.18	2.73
	Input HP (Max.)	5.59	5.11	4.50	4.02
	OHL Output Shaft	3110	3050	2900	2730
50	Output RPM	50	35	23	17
	Output Torque, in.lb.	4654	5926	7589	7976
	Output HP (Max.)	3.69	3.29	2.79	2.18
	Input HP (Max.)	5.03	4.63	4.13	3.41
	OHL Output Shaft	3100	3000	2800	2740

OHL output shaft value shown is lbs. (maximum allowed).

References	Inst./Maint. p. G2-29	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-96 & G2-97
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# DIMENSIONS



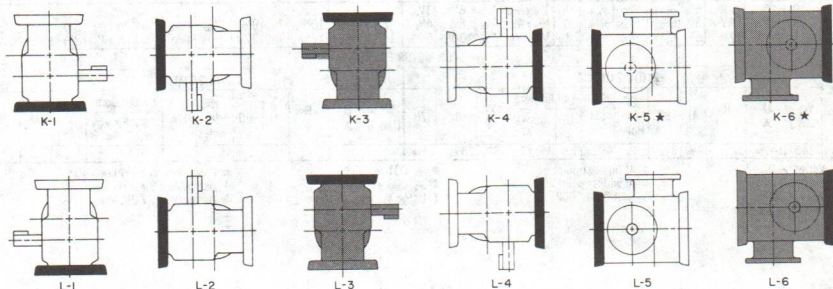
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

### INCLINED MOUNTING

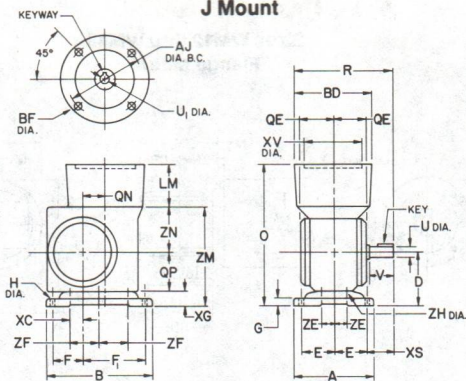
All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.







# Sizes WM12 thru WM40 J Mount



Case Size	A	B	D ⊙	E	F	F <sub>1</sub>	G	H (4) Holes	QE	QN	QP	XC	XG
WM12J	5 1/2	6 7/8	3 1/4	2 1/4	2	4	3/8	1 1/2	2 1/4	1 1/2	2 1/4	3/4	1 1/8
WM16J	6	8	3 15/16	2 1/2	2 1/4	4 1/4	1/2	1 3/4	2 1/2	2	2 1/4	1 1/8	1 1/8
WM21J	9 1/4	12 1/4	5 1/4	4	4 11/16	6 1/16	3/4	1 7/8	3 1/16	2 5/8	3 1/16	2 1/8	1 15/16
WM28J	9 1/4	12 1/4	6 1/2	4	4 3/8	6 3/8	3/4	1 7/8	4 1/2	3 1/2	4 1/16	2 1/8	1 15/16
WM40J	15	20 1/2	10	6 1/4	7 7/8	10 1/8	1 1/4	1 11/16	5 1/4	5	7	4 1/4	3

OUTPUT SHAFT							FOR MOTOR FRAMES:											
							48Y/56C											
Case Size	ZE	ZF	ZH (4) Holes	U ⬇	V ⬆	Key	XS	Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> * Keyway I	XV ◆	ZM ⊙	ZN
WM12J	1 1/16	1 3/4	3/8-16 TAP 3/8 DP.	3/8	1 1/4	3/16 x 3/16 x 1	1 13/16	28	41	99/32	7 7/16	5/8	6 1/2	1 1/2	3/8	3/8 x 3/32	4 1/2	2 1/2
WM16J	1 1/8	2 1/8	3/8-16 TAP 3/8 DP.	3/8	2	3/16 x 3/16 x 1 1/4	2 1/16	41	10 7/8	7 7/8	5/8	6 1/2	1 1/2	3 1/8	3/8	3/8 x 3/32	4 1/2	3 1/2
WM21J	1 1/8	3 1/4	1/2-13 TAP 1 1/8 DP.	1 1/8	2 1/2	1/4 x 1/4 x 1 3/4	2	79	12 1/4	9 1/8	5/8	6 1/2	1 1/2	3 1/8	3/8	3/8 x 3/32	4 1/2	4 1/2
WM28J	1 1/8	3 1/4	1/2-13 TAP 1 1/8 DP.	1 1/2	3 1/4	3/8 x 3/8 x 2 1/2	3 3/8	120	15 1/2	12 1/2	5/8	6 1/2	1 1/2	3 1/8	3/8	3/8 x 3/32	4 1/2	5 1/2
WM40J	2 1/4	5 5/8	7/8-9 TAP 1 3/8 DP.	2 1/8	4 1/2	1/2 x 1/2 x 3 1/2	4 3/8	...	...	...	...	...	...	...	...	...	...	...

Case Size		FOR MOTOR FRAMES:																						
		140TC/160ATC												180TC/180ATCZ +										
		Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> ★ Keyway I	XV ⬇	ZM ⊙	ZN	Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> ★ Keyway ★	XV ⬇	ZM ⊙	ZN	
WM16J	41	10 1/8	7 7/8	5/8	6 1/2	1 1/2	3 1/8	3/8	3/8 x 3/32	4 1/2	7 7/8	3 1/2	94	14 3/8	10 3/8	7 1/4	9 1/2	1 1/2	4 3/8	1 1/8	1/4 x 1/8	8 1/2	10 1/8	4 1/8
WM21J	79	12 1/4	9 1/8	5/8	6 1/2	1 1/2	3 1/8	3/8	3/8 x 3/32	4 1/2	9 1/8	4	138	17 1 1/2	12 1/2	7 1/4	9 1/2	1 1/2	4 3/8	1 1/8	1/4 x 1/8	8 1/2	12 1/8	6 1/8
WM28J	120	15 1/2	12 1/2	5/8	6 1/2	1 1/2	3 1/8	3/8	3/8 x 3/32	4 1/2	12 1/2	5 1/2	366	24 1 1/2	16 1/2	7 1/4	9	1 1/2	8 1/2	1 1/8	1/4 x 1/8	8 1/2	15 1/8	5 1/8
WM40J																								

FOR MOTOR FRAMES:																								
Case Size	210TC/210ATCZ +												250TC/250ATCZ +											
	Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore	XV ⬇	ZM ⊙	ZN	Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore		XV ⬇	ZM ⊙	ZN	
								U <sub>1</sub> ⬆											Keyway ⬆	U <sub>1</sub> ⬆				Keyway ⬆
WM21J	104	14 3/8	10 3/8	7 1/4	9 1/2	1 1/2	4 1/2	1 3/8	3/8 x 3/32	8 1/2	10 1/8	4 1/8	...	...	...	...	...	...	...	...	...	...	...	...
WM28J	148	17 1/2	12 1/2	7 1/4	9 1/2	1 1/2	4 1/2	1 3/8	3/8 x 3/32	8 1/2	12 1/8	5 1/8	...	...	...	...	...	...	...	...	...	...	...	...
WM40J	376	24 1/2	16 1/2	7 1/4	9	1 1/2	8 1/2	1 3/8	3/8 x 3/32	8 1/2	15 1/8	376	24 1/2	16 1/2	7 1/4	9	1 1/2	8 1/2	1 3/8	3/8 x 3/16	8 1/2	15 1/8	5 1/8	

⊙ "D" varies + 0, - 1/32.  
⬆ Usable shaft length.  
▲ + .0000 - .0005.

▲ At highest point.  
§ At widest point.  
⊙ Includes bolt-on foot.

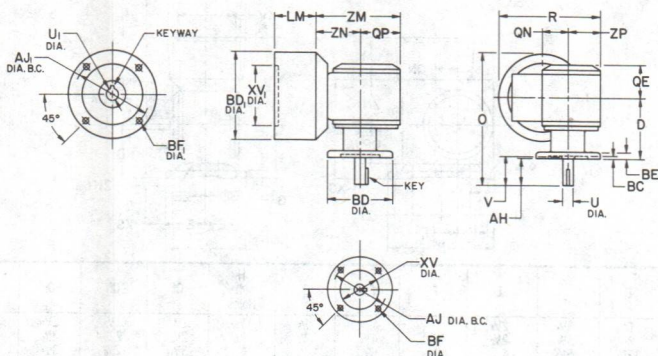
\* + .001 + .002  
⬆ + .001 + .003  
⬆ + .000 + .002.

★ Using 3/8 x 3/16 x 1 1/4 key.  
⬆ Using 1/4 x 1/4 x 1 3/4 key.  
⬆ Using 3/8 x 3/8 x 2 1/4 key.  
⬆ Using 3/8 x 3/8 x 2 1/4 key.  
+ ATCZ Shaft extn. must match TC extn.

References	Std. Features p. G2-2—G2-4	Ratings p. G2-8 & G2-9	Selection p. G2-6 & G2-7	Mr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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## Sizes WM12 thru WM40 Flange Mount



													FOR MOTOR FRAMES:															
Case Size	D ⌀	BE	BF (4) Holes	AH	AJ	BC	BD	QE	QN	QP	XV	ZP	Output Shaft					48Y/56C										
													U ▲	V ◆	Key	Wt. (Lbs.)	O ▲	R ◆	AJ	BD	BF (4) Holes	LM	Input Bore		XV ◆	ZM	ZN	
																							U ◆	Keyway I				
WM12F	3 1/4	3/8	3/16	1 1/16	3/16	1/8	4	2 1/4	1 1/2	2 1/4	2 1/4	2 1/4	3/4	1 1/16	3/16 x 3/16 x 1	25	7 1/16	7 1/16	5/16	5/16	5/16	13/32	3/16	3/16	3/16	4 1/2	4 1/16	2 1/2
WM16F	4 1/4	7/16	1/8	2 1/16	4	1/8	5	2 1/2	2	2 1/2	3	2 1/2	1 1/8	2 1/4	3/8 x 1/4 x 1 1/4	39	10 1/32	7 1/16	5/16	5/16	5/16	13/32	3/16	3/16	3/16	4 1/2	6 1/16	3 1/4
WM21F	5 1/2	1 1/2	1/4	2 1/4	5/16	1/4	7	3 1/8	2 3/4	3 1/8	5	3 1/8	1 1/2	2 1/2	1/2 x 1/4 x 1 1/4	71	10 1/4	9 1/32	5/16	5/16	5/16	13/32	3/16	3/16	3/16	4 1/2	7 1/8	4 1/4
WM28F	6 3/4	1 7/8	3/8	2 3/4	3/4	1/2	10	4 1/4	3 1/4	4 1/4	6 1/4	4 1/4	1 1/2	3 1/4	3/8 x 3/8 x 3/4	119	14 1/8	10 1/8	5/8	5/8	5/8	13/32	3/16	3/16	3/16	4 1/2	10 1/8	5 1/2
WM40F	7 1/4	2 1/4	1 1/2	3 1/2	1 1/4	1	16 1/2	5 1/4	5	7 1/4	13 1/2	5 1/4	2 1/8	4 1/2	1/2 x 1/2 x 3/4	...	...	...	...	...	...	...	...	...	...	...	...	...
FOR MOTOR FRAMES:																												
Case Size	Wt. (Lbs.)	O ▲	R ◆	AJ	BD	BF (4) Holes	LM	140TC/160ATC				180TC/180ATC +																
								Input Bore				XV ◆	ZM	ZN	Wt. (Lbs.)	O ▲	R ◆	AJ	BD	BF (4) Holes	LM	Input Bore		XV ◆	ZM	ZN		
								U ◆	Keyway I	U ◆	Keyway ★																	
WM12F	25	7 1/16	7 1/16	5/16	5/16	6 1/32	1 1/32	3 1/16	7/8	3 1/16 x 3/32	4 1/2	4 1/16	2 1/32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WM16F	39	10 1/32	7 1/16	5/16	5/16	6 1/32	1 1/32	3 1/16	7/8	3 1/16 x 3/32	4 1/2	4 1/16	3 1/32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WM21F	71	10 1/4	9 1/32	5/8	5/8	6 1/32	1 1/32	3 1/16	7/8	3 1/16 x 3/32	4 1/2	4 1/16	4 1/32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WM28F	119	14 1/8	10 1/8	5/8	5/8	6 1/32	1 1/32	3 1/16	7/8	3 1/16 x 3/32	4 1/2	4 1/16	5 1/32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WM40F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
FOR MOTOR FRAMES:																												
Case Size	Wt. (Lbs.)	O ▲	R ◆	AJ	BD	BF (4) Holes	LM	210TC/210ATC +				250TC/250ATC +																
								Input Bore				XV ◆	ZM	ZN	Wt. (Lbs.)	O ▲	R ◆	AJ	BD	BF (4) Holes	LM	Input Bore		XV ◆	ZM	ZN		
								U ◆	Keyway I	U ◆	Keyway ★																	
WM28F	147	14 1/16	12 1/16	7/8	7/8	9 1/32	1 1/32	4 1/16	1 3/8	1 3/8 x 3/32	8 1/2	10 1/8	6 1/16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WM40F	348	16 1/8	15 1/8	7/8	7/8	9 1/32	1 1/32	4 1/16	1 3/8	1 3/8 x 3/32	8 1/2	13	5 1/8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

● "D" varies + 0, - 1/32.

† Usable shaft length.

◆ + .001 - .005.

▲ At highest point.

★ At widest point.

\* + .001 + .002.

◆ + .001 - .003.

† + .000 - .002.

‡ Using 3/16 x 3/16 x 1 1/4 key.

★ Using 1/4 x 1/4 x 1 1/4 key.

◆ Using 3/16 x 3/16 x 2 1/4 key.

▲ Using 3/8 x 3/8 x 2 1/4 key.

+ ATCZ Shaft extrn. must match TC extrn.

References	Std. Features p. G2-2—G2-4	Rated p. G2-8 & G2-9	Selection p. G2-6 & G2-7	Mtr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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izes CM12 thru CM40  
WM12 thru WM40  
H419

## INSTALLATION

Proper installation of MASTER speed reducers will ensure reliable service and maximum life. Key items to minimize possible failures include:

**Gear Case Mounting**—To insure uniform pressure mount gear case on flat surface. Use uniform torque when mounting bolts are tightened.

**Shaft Overhung Loads**—Excessive overhung loads due to over tightening of belts or chains can result in broken shafts and reduced bearing life or failure.

**Couplings**—Improper coupling alignment can result in excessive stresses on gear unit shaft and bearings.

**Shock Loads**—Excessive shock loads can also result in damaging stresses on shafting and bearings.

## LUBRICATION

Proper lubrication of MASTER speed reducers is extremely important if long trouble-free operation is to be expected. Proper lubrication consists of:

1. Use of proper type and grade of lubricant.
2. Maintenance of correct oil level.
3. Drain, flush, and refill at the required intervals.

MASTER speed reducers are filled at the factory with the proper oil to the correct level for the specified mounting position. It is impossible to select one gear lubricant of petroleum origin which is usable over a wide range of temperatures. MASTER reducers are filled with lubricant meeting AGMA 7EP standards as outlined in table below. Use lubricants of the proper group and AGMA number as required by the ambient temperature in which the reducer will operate.

The correct amount of oil is important to the performance of a speed reducer. Each MASTER speed reducer has a red oil level plug which indicates the proper oil level for a given mounting position. All standard mounting positions can be mounted up to  $\pm 5^\circ$  from either vertical or horizontal axis without changing oil vent, level and drain plugs. If mounting angle exceeds  $\pm 5^\circ$ , specify when ordering.

Changes in the mounting position will require relocation

### Recommended Lubricants for Continuous Duty Under Load

Ambient Temperature	Reliance Group	AGMA Number
-65°F to 0°F*	318.59	Consult Factory
-45°F to +20°F*	318.60	Consult Factory
-5°F to +55°F*	318.61	5EP
+15°F to +110°F	318.62	7EP
+100°F to 165°F**	318.63	8EP

References p. G2-2—G2-4	Std. Features p. G2-2—G2-4	Ratings p. G2-6 & G2-7	Selection p. G2-6 & G2-7	Mtr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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of the level plug and adding or drawing lubricant to insure proper amount. Check the oil level plug location diagrams on instruction tags shipped with each reducer.

## Recommended Lubricant Suppliers—

The following lubricants are recommended for units operating in the +15°F to +110°F ambient temperature range.

Supplier	Product (weight)
Amoco Oil Co. ....	AMOCO Permagear EP (460)
Amoco Oil Co. ....	Worm Gear Oil
Atlantic Richfield Co. ....	Arco Mineral Gear Oil— SAE (140)
Carr Oil Co. ....	Lube 733EP (140)
Darmex Corp. ....	Gear Box Oil (DX-9140)
Dubois Chemical Co. ....	E.G.O. EP (140)
Fiske Brothers. ....	Lubriplate APG (140)
Gulf Oil Co. ....	Transgear Lube (460)
E. F. Houghton Co. ....	MP Gear Oil (140)
Keystone Lubrication Co. ....	WG-A
Mobil Oil Co. ....	Cylinder Oil (600W)
Phillips Petroleum Co. ....	Philube (140)
Shell Oil Co. ....	Spirax Heavy Duty (85W-140)
Ultra Chem. ....	Chemilube (140)

Gear case is shipped with a solid plug in the vent hole. This plug must be removed and vented plug which is furnished must be inserted before unit is operated. This vent plug is designed to prevent dirt and water from entering the gearcase and also releases the air pressure caused by heat generated in the gearcase. Without proper air venting the increase in air pressure may force lubricant through the oil seals and result in oil leakage and/or damage to the oil seal. **Do not restrict the operation of this vent with paint or other obstructions.**

## MAINTENANCE

Periodic changing of lubricant is important for maximum reducer performance. Lubricant should be drained and refilled after the first 250 hours of operation; then every 1500 hours or six months thereafter, whichever occurs first.\*\*

In addition to lubrication and installation, regular inspection to ensure tightness of bolts and screws, correct alignment of shaft and couplings, no major oil leaks, no excessive heating and no unusual vibration or noises will guarantee maximum performance and life of your MASTER reducer.

\*For temperatures below +10°F special oil seals are required.

\*\*All group 63 lubes must be changed after 300 hrs. of high temperature operation.



# MASTER XL Size CM12

## Combination Reduction, 3-Piece Coupled C-face Reducer

### ORDER INFORMATION

Case Size	List Price	Discount Symbol	Wt. (lbs.)
	56/140 Frame		
CM12A	\$720	D-46b	27
CM12B	767		30
CM12F	774		34
CM12J	796		32

### OPTIONS

Description/Part Number	List Price
Double Shaft (LK Suffix)	\$41 List
Easy Clean and XT	\$95 List
Mobil SHC634 or USDA H1 Food Grade Lubricant	\$10 List
Lubricant	\$10 List

### ORDER NUMBERS ♦

Ratio	Frame 56C	Frame 140TC	Ratio	Frame 56C	Frame 140TC
20	—	—	86	M60198	M60210
25	M60191	M60203	101	M94405*	M60211
30	M60192	M60204	121	M94406*	M60212
36	M60193	M60205	144	M61240	M60213
40	M60194	M60206	162	M60199	M60214
50	M60195	M60207	192	M94408*	M60215
60	M60196	M60208	240	M60200	M60216
70	M60197	M60209	336	M60202	M60218

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in Standard, XT, or Easy Clean gearcase with integral cast foot or flange. Mark order: RED BARON.

♦ Add mounting designation to this number if other than "K." Order numbers are for K shaft position. Order by description all others.  
\* Standard in stock in "K" shaft position.

### Super Cycle Delivery

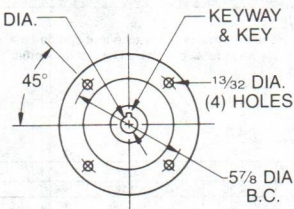
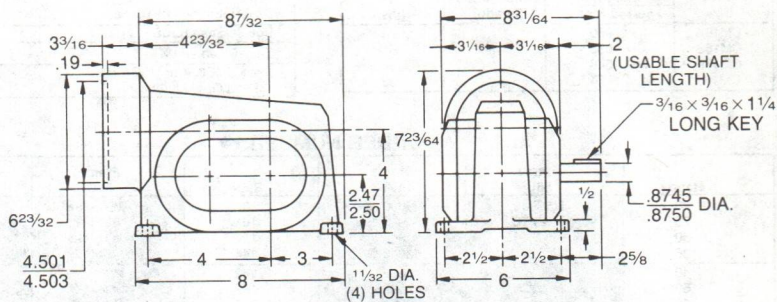
MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for parts check.

### RATING TABLE

Ratio	Rating Data	RPM INPUT				Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860			2500	1750	1160	860
20	Output RPM	125	87	58	43	86	Output RPM	29	20	13.5	10
	Output Torque, in.lb.	663	772	886	969		Output Torque, in.lb.	1000	1060	1066	1067
	Input HP (Max.)	1.29	1.06	.80	.66		Output HP (Max.)	.45	.34	.22	.17
	OHL Output Shaft	1.51	1.23	1.00	.80		Input HP (Max.)	.61	.46	.31	.24
25	Output RPM	980	1080	1130	1120	101	OHL Output Shaft	1120	1120	1110	1110
	Output Torque, in.lb.	104	70	48	36		Output RPM	25	17	11.5	8.5
	Output Torque, in.lb.	793	923	1036	1029		Output Torque, in.lb.	865	1062	1182	1182
	Output HP (Max.)	1.29	1.06	.78	.58		Output HP (Max.)	.34	.29	.21	.16
30	Input HP (Max.)	1.51	1.23	.93	.70	121	Input HP (Max.)	.50	.41	.31	.23
	OHL Output Shaft	1040	1130	1120	1120		OHL Output Shaft	1130	1120	930	930
	Output RPM	83	58	39	29		Output RPM	21	14	9.6	7
	Output Torque, in.lb.	788	881	871	876		Output Torque, in.lb.	758	964	1175	1345
36	Output HP (Max.)	1.03	.80	.53	.39	144	Output HP (Max.)	.25	.22	.18	.15
	Input HP (Max.)	1.23	1.00	.65	.50		Input HP (Max.)	.40	.36	.29	.26
	OHL Output Shaft	1100	1130	1130	1130		OHL Output Shaft	1140	1130	950	600
	Output RPM	69	48	32	24	162	Output RPM	17	12	8	6
40	Output Torque, in.lb.	939	1039	1038	1044		Output Torque, in.lb.	903	1056	1073	1062
	Output HP (Max.)	1.03	.79	.53	.39		Output HP (Max.)	.25	.20	.14	.10
	Input HP (Max.)	1.23	.96	.65	.49		Input HP (Max.)	.40	.34	.23	.18
	OHL Output Shaft	1130	1120	1120	1120		OHL Output Shaft	1130	1120	1110	1120
50	Output RPM	63	44	29	22	192	Output RPM	15	11	7	5
	Output Torque, in.lb.	805	934	1117	1291		Output Torque, in.lb.	844	1023	1255	1401
	Output HP (Max.)	.78	.64	.43	.33		Output HP (Max.)	.21	.17	.14	.12
	Input HP (Max.)	1.00	.80	.64	.55		Input HP (Max.)	.36	.31	.25	.22
60	OHL Output Shaft	1140	1130	1130	740	240	OHL Output Shaft	1140	1120	810	380
	Output RPM	49	35	23	17		Output RPM	13	9	6	4.5
	Output Torque, in.lb.	838	1024	1179	1257		Output Torque, in.lb.	1005	1065	1079	1069
	Output HP (Max.)	.64	.55	.42	.33		Output HP (Max.)	.21	.15	.10	.07
70	Input HP (Max.)	.82	.69	.53	.43	336	Input HP (Max.)	.28	.26	.19	.14
	OHL Output Shaft	1130	1120	930	800		OHL Output Shaft	1120	1120	1120	1120
	Output RPM	42	29	19	14		Output RPM	10	7	4.8	3.6
	Output Torque, in.lb.	998	1067	1059	1034		Output Torque, in.lb.	987	1065	1081	1081
80	Output HP (Max.)	.64	.48	.32	.23	440	Output HP (Max.)	.16	.12	.08	.06
	Input HP (Max.)	.82	.61	.41	.30		Input HP (Max.)	.30	.24	.16	.13
	OHL Output Shaft	1120	1120	1120	1120		OHL Output Shaft	1130	1120	1100	1100
	Output RPM	35	25	16	12		Output RPM	7.4	5	3.5	2.6
90	Output Torque, in.lb.	926	1056	1047	1048	560	Output Torque, in.lb.	477	460	463	447
	Output HP (Max.)	.51	.40	.26	.20		Output HP (Max.)	.06	.04	.02	.02
	Input HP (Max.)	.67	.54	.37	.28		Input HP (Max.)	.13	.10	.06	.05
	OHL Output Shaft	1130	1120	1120	1120		OHL Output Shaft	1160	1160	1160	1160

References	Nomenclature p. G2-7	Inst. Maint. p. G2-50	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-92 & G2-93
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## DIMENSIONS



Frame	U		Keyway	Uses Key
	Min.	Max.		
48Y, 56C	.626	.627	$\frac{3}{16} \times \frac{3}{32}$	$\frac{3}{16} \times \frac{3}{16} \times 1\frac{1}{4}$
140TC, 160ATC	.876	.877		

**Note—**  
Multimount  
Dimensions p. G2-40  
J Mount  
Dimensions p. G2-41  
Flange Mount  
Dimensions p. G2-42

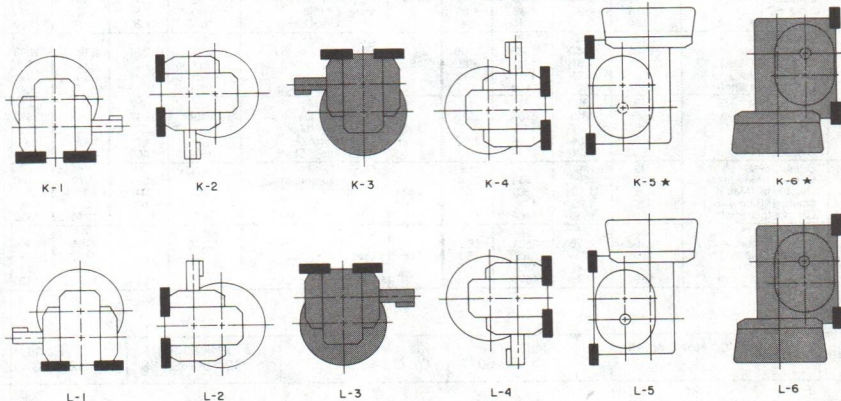
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

Countershaft is located on the concealed side of these units.

## INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.





# MASTER XL Size CM16

## Combination Reduction, 3-Piece Coupled C-face Reducer

### ORDER INFORMATION

Case Size	List Price	Discount Symbol	Wt. (lbs.)
	56/140 Frame		
CM16A	\$ 930	D-46b	54
CM16B	1033		61
CM16F	1048		66
CM16J	1074		63

### OPTIONS

Description/Part Number	List Price
Double Shaft (LK Suffix)	\$ 49 List
Easy Clean and XT	\$110 List
Mobil SHC634 or USDA H1 Food Grade Lubricant	\$ 20 List

### ORDER NUMBERS ♦

Ratio	Frame 56C	Frame 140TC	Ratio	Frame 56C	Frame 140TC
20	M60000	M60001	86	M94889*	M94889*
25	M60219	M94895*	101	M94411*	M60237
30	M60220	M94894*	121	M94412*	M60238
36	M60221	M94893*	144	M94413*	M60239
40	M60222	M60232	162	M60226	M60240
50	M60223	M60233	192	M94414*	M60241
60	M94850*	M94850*	240	M60227	M60242
70	M60224	M60235	288	M94415*	M60243

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in Standard, XT, or Easy Clean gear-case with integral cast foot, flange or multimount. Mark order: RED BARON.

- ♦ Add mounting designation to this number if other than "K." Order numbers are for K shaft position. Order by description all others.
- \* Standard in stock in "K" shaft position.

### Super Cycle Delivery

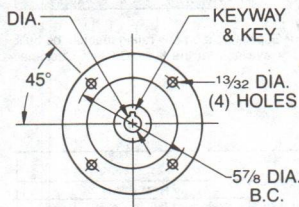
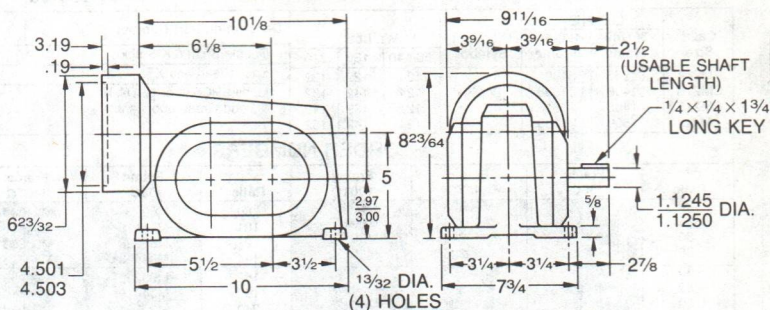
MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for parts check.

### RATING TABLE

Ratio	Rating Data	RPM INPUT				Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860			2500	1750	1160	860
20	Output RPM	125	87	58	43	86	Output RPM	29	20	13.5	10
	Output Torque, in.lb.	1726	2206	2427	2441		Output Torque, in.lb.	2351	2522	2645	2648
	Output HP (Max.)	3.37	3.02	2.20	1.64		Output HP (Max.)	1.08	.81	.56	.42
	Input HP (Max.)	3.75	3.37	2.48	1.87		Input HP (Max.)	1.37	1.05	.75	.58
25	OHL Output Shaft	1240	1460	1640	1640	101	OHL Output Shaft	1620	1570	1380	1380
	Output RPM	104	70	48	36		Output RPM	25	17	11.5	8.5
	Output Torque, in.lb.	2050	2277	2426	2408		Output Torque, in.lb.	2196	2558	2897	2900
	Output HP (Max.)	3.40	2.64	1.87	1.37		Output HP (Max.)	.86	.70	.52	.39
30	Input HP (Max.)	3.78	3.00	2.11	1.57	121	Input HP (Max.)	1.09	.90	.70	.53
	OHL Output Shaft	1380	1540	1640	1640		OHL Output Shaft	1640	1510	1400	1400
	Output RPM	83	58	39	29		Output RPM	21	14	9.6	7
	Output Torque, in.lb.	1869	1868	1868	1867		Output Torque, in.lb.	1921	2227	2685	2687
36	Output HP (Max.)	2.43	1.70	1.13	.84	144	Output HP (Max.)	63	.51	.41	.32
	Input HP (Max.)	2.78	2.00	1.32	1.00		Input HP (Max.)	.90	.75	.62	.52
	OHL Output Shaft	1480	1660	1700	1700		OHL Output Shaft	1700	1630	1300	1300
	Output RPM	69	48	32	24	162	Output RPM	17	12	8	6
40	Output Torque, in.lb.	2202	2201	2201	2199		Output Torque, in.lb.	2264	2624	2715	2646
	Output HP (Max.)	2.43	1.70	1.13	.84		Output HP (Max.)	63	.51	.41	.32
	Input HP (Max.)	2.78	2.00	1.32	1.00		Input HP (Max.)	.90	.75	.62	.52
50	OHL Output Shaft	1560	1640	1640	1640		OHL Output Shaft	1640	1420	1250	1380
	Output RPM	63	44	29	22	192	Output RPM	15	11	7	5
	Output Torque, in.lb.	2008	2360	2755	2909		Output Torque, in.lb.	2080	2374	2867	2893
	Output HP (Max.)	1.96	1.61	1.25	.98		Output HP (Max.)	.51	.41	.32	.24
60	Input HP (Max.)	2.28	1.91	1.51	1.19	240	Input HP (Max.)	.78	.64	.53	.42
	OHL Output Shaft	1650	1620	1150	850		OHL Output Shaft	1670	1610	920	850
	Output RPM	49	35	23	17		Output RPM	13	9	6	4.5
	Output Torque, in.lb.	2036	2353	2794	2913		Output Torque, in.lb.	2464	2647	2663	2630
70	Output HP (Max.)	1.57	1.27	1.00	.77	288	Output HP (Max.)	.51	.38	.25	.19
	Input HP (Max.)	1.88	1.43	1.00	.76		Input HP (Max.)	.78	.60	.42	.33
	OHL Output Shaft	1680	1620	1100	820		OHL Output Shaft	1590	1400	1350	1400
	Output RPM	42	29	19	14		Output RPM	10	7	4.8	3.6
	Output Torque, in.lb.	2398	2568	2638	2669		Output Torque, in.lb.	2528	2667	2672	2650
	Output HP (Max.)	1.57	1.18	.80	.60		Output HP (Max.)	.42	.31	.21	.16
	Input HP (Max.)	1.88	1.54	1.00	.76		Input HP (Max.)	.67	.52	.37	.28
	OHL Output Shaft	1600	1530	1400	1320		OHL Output Shaft	1600	1340	1340	1340
	Output RPM	35	25	16	12		Output RPM	8.7	6	4	3
	Output Torque, in.lb.	2468	2526	2521	2628		Output Torque, in.lb.	2340	2324	2305	2309
	Output HP (Max.)	1.36	.98	.65	.50		Output HP (Max.)	.32	.22	.15	.11
	Input HP (Max.)	1.67	1.21	.83	.65		Input HP (Max.)	.55	.40	.28	.21
	OHL Output Shaft	1590	1570	1570	1420		OHL Output Shaft	1620	1620	1620	1620

References	Nomenclature p. G2-7	Inst. Maint. p. G2-50	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-92 & G2-93
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## M16A



Frame	U		Keyway	Uses Key
	Min.	Max.		
48Y, 56C	.626	.627	$\frac{3}{16} \times \frac{3}{32}$	$\frac{3}{16} \times \frac{3}{16} \times 1\frac{1}{4}$
140TC, 160ATC	.876	.877		

Multimount  
Dimensions p. G2-40  
J Mount  
Dimensions p. G2-41  
Flange Mount  
Dimensions p. G2-42

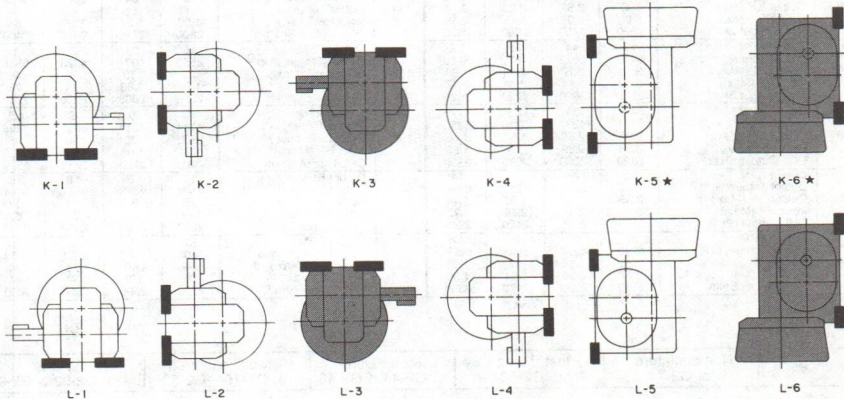
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

Countershaft is located on the concealed side of these units.

### INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.





# MASTER XL Size CM21

## Combination Reduction, 3-Piece Coupled C-face Reducer

ORDER INFORMATION						OPTIONS		
Case Size	List Price		Discount Symbol	Wt. (lbs.)			Description/Part Number	List Price
	56/140 Frame	180/210 Frame		56/140	180	210		
CM21A	\$1365	\$1495	D-46b	104	122	132	Double Shaft (LK Suffix)	\$ 63 List
CM21B	1468	1598		124	142	152	Easy Clean and XT	\$113 List
CM21F	1486	1616		121	139	149	Mobil SHC634 or USDA H1	\$ 50 List
CM21J	1509	1639		124	142	152	Food Grade Lubricant	
ORDER NUMBERS ♦								
Ratio	Frame 56C	Frame 140TC	Frame 180TC	Ratio	Frame 56C	Frame 140TC	Frame 180TC	
20	M60002	M60003	M60004	86	M60252	M94890*	M60277	
25	M60245	M60256	M60270	101	M94416*	M94416*	M60278	
30	M60246	M60257	M60271	121	M61239	M60263	M60279	
36	M60247	M60258	M60272	144	M94418*	M94418*	M60280	
40	M60248	M61257	M60273	162	M60253	M60255	M60281	
50	M60249	M94892*	M60274	192	M94419*	M94419*	M60282	
60	M60250	M94891*	M60275	240	M60254	M60267	M60283	
70	M60251	M60260	M60276	288	M94420*	M60268	M60284	

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in Standard, XT, or Easy Clean gearcase with integral cast foot, flange, or multimount. Mark order: RED BARON.

- ♦ Add mounting designation to this number, if other than "K." Order numbers are for K shaft position. Order by description all others.
- \* Standard in stock in "K" shaft position.

### Super Cycle Delivery

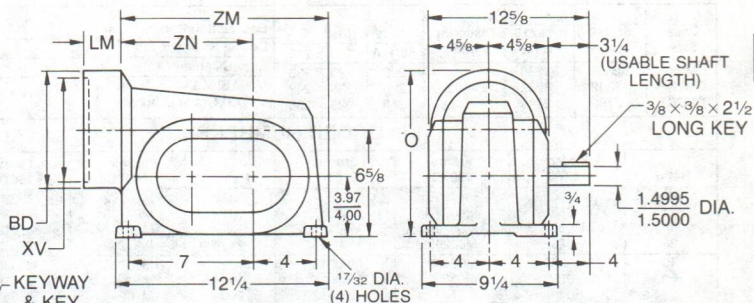
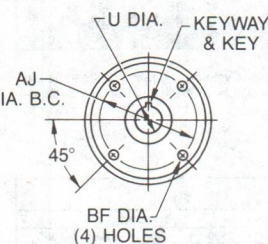
MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for parts check.

RATING TABLE											
Ratio	Rating Data	RPM INPUT				Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860			2500	1750	1160	860
20	Output RPM	125	87	58	43	86	Output RPM	29	20	13.5	10
	Output Torque, in. lb.	3059	3610	4544	4977		Output Torque, in. lb.	4544	5182	6196	6211
	Output HP (Max.)	5.98	4.94	4.12	3.35		Output HP (Max.)	2.09	1.67	1.32	.98
	Input HP (Max.)	6.52	5.43	4.56	3.74		Input HP (Max.)	2.47	2.01	1.62	1.24
	OHL Output Shaft	2150	2360	2680	2680		OHL Output Shaft	2760	2640	2400	2400
25	Output RPM	104	70	48	36	101	Output RPM	25	17	11.5	8.5
	Output Torque, in. lb.	3604	4238	4785	5848		Output Torque, in. lb.	4051	4729	5103	5107
	Output HP (Max.)	5.98	4.92	3.68	3.34		Output HP (Max.)	1.58	1.29	.92	.69
	Input HP (Max.)	6.52	5.41	4.08	3.73		Input HP (Max.)	2.00	1.64	1.21	.92
	OHL Output Shaft	2250	2490	2720	2500		OHL Output Shaft	2800	2730	2670	2670
30	Output RPM	83	58	39	29	121	Output RPM	21	14	9.6	7
	Output Torque, in. lb.	3429	3966	4782	4770		Output Torque, in. lb.	3413	3940	4670	5263
	Output HP (Max.)	4.47	3.62	2.89	2.14		Output HP (Max.)	1.11	.90	.71	.59
	Input HP (Max.)	5.00	4.08	3.28	2.48		Input HP (Max.)	1.50	1.21	1.00	.84
	OHL Output Shaft	2400	2680	2720	2500		OHL Output Shaft	2860	2800	2740	2630
36	Output RPM	69	48	32	24	144	Output RPM	17	12	8	6
	Output Torque, in. lb.	4039	4671	5458	5618		Output Torque, in. lb.	4021	4642	5502	6200
	Output HP (Max.)	4.47	3.62	2.80	2.14		Output HP (Max.)	1.11	.90	.71	.59
	Input HP (Max.)	5.00	4.08	3.18	2.48		Input HP (Max.)	1.50	1.21	1.00	.84
	OHL Output Shaft	2500	2750	2680	2570		OHL Output Shaft	2800	2750	2600	2400
40	Output RPM	63	44	29	22	162	Output RPM	15	11	7	5
	Output Torque, in. lb.	3415	3973	4810	5429		Output Torque, in. lb.	3552	4087	4823	5536
	Output HP (Max.)	3.34	2.72	2.18	1.83		Output HP (Max.)	.87	.70	.55	.46
	Input HP (Max.)	3.79	3.14	2.54	2.17		Input HP (Max.)	1.24	1.03	.84	.75
	OHL Output Shaft	2670	2800	2720	2620		OHL Output Shaft	2850	2800	2720	2600
50	Output RPM	49	35	23	17	192	Output RPM	13	9	6	4.5
	Output Torque, in. lb.	3701	4297	5110	5882		Output Torque, in. lb.	4184	4814	5681	6298
	Output HP (Max.)	2.85	2.32	1.83	1.56		Output HP (Max.)	.87	.70	.55	.45
	Input HP (Max.)	3.28	2.69	2.16	1.86		Input HP (Max.)	1.24	1.03	.84	.72
	OHL Output Shaft	2820	2800	2670	2500		OHL Output Shaft	2800	2720	2550	2380
60	Output RPM	42	29	19	14	240	Output RPM	10	7	4.8	3.6
	Output Torque, in. lb.	4360	5062	6019	6399		Output Torque, in. lb.	4196	4879	5787	6444
	Output HP (Max.)	2.85	2.32	1.83	1.44		Output HP (Max.)	.70	.57	.44	.37
	Input HP (Max.)	3.28	2.69	2.16	1.72		Input HP (Max.)	1.05	.88	.75	.63
	OHL Output Shaft	2800	2680	2460	2240		OHL Output Shaft	2800	2700	2500	2200
70	Output RPM	35	25	16	12	288	Output RPM	8.7	6	4	3
	Output Torque, in. lb.	4260	4869	5845	6287		Output Torque, in. lb.	4306	5004	5221	5053
	Output HP (Max.)	2.36	1.98	1.50	1.20		Output HP (Max.)	.59	.48	.33	.24
	Input HP (Max.)	2.77	2.26	1.84	1.50		Input HP (Max.)	.93	.79	.58	.44
	OHL Output Shaft	2780	2680	2470	2350		OHL Output Shaft	2790	2690	2500	2290

References	Nomenclature p. G2-7	Inst. Maint. p. G2-50	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-92 & G2-93
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M21A

## DIMENSIONS



**Note—**  
Multimount  
Dimensions p. G2-40  
J Mount  
Dimensions p. G2-41  
Flange Mount  
Dimensions p. G2-42

Frame	AJ	BD	BF	LM	U		Keyway	XV	ZM	ZN	O	Uses Key
					Min.	Max.						
48YC, 56C	5 7/8	6 23/32	13/32	3 3/16	.626	.627	3/16 x 3/32	4.501/4.503	12 3/8	7 3/4	10	3/16 x 3/16 x 1 1/4
140TC, 160ATC	5 7/8	6 23/32	13/32	3 3/16	.876	.877	3/16 x 3/32	4.501/4.503	12 3/8	7 3/4	10	3/16 x 3/16 x 1 1/4
180TC, 180ATC	7 1/4	9	1 7/32	4 5/8	1.126	1.127	1/4 x 1/8	8.500/8.502	13 1/16	8 7/16	11 1/4	1/4 x 1/4 x 1 3/4

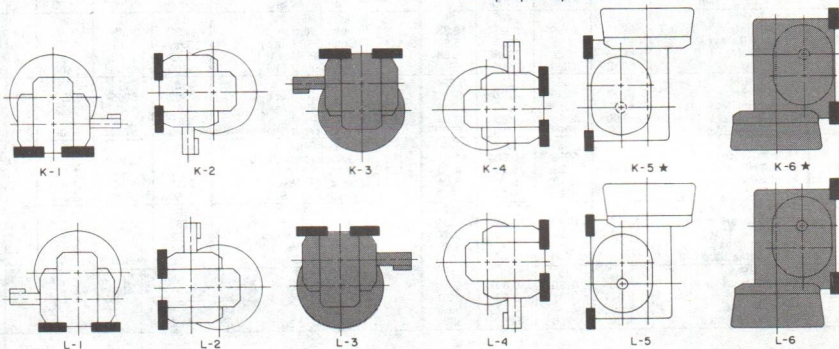
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions NOT recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

### INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.





## Combination Reduction, 3-Piece Coupled C-face Reducer

ORDER INFORMATION						OPTIONS		
Case Size	List Price		Discount Symbol	Wt. (lbs.)			Description/Part Number	List Price
	56/140 Frame	180/210 Frame		56/140	180	210		
CM28A	\$2658	\$2788	D-46b	208	223	233	Double Shaft (LK Suffix)	\$ 99 List
CM28F	2842	2972		226	239	249	Easy Clean and XT	\$126 List
CM28J	2768	2898		215	228	238	Mobil SHC634 or USDA H1 Food Grade Lubricant	\$ 80 List

### ORDER NUMBERS ♦

Ratio	Frame 140TC	Frame 180TC	Frame 210TC	Ratio	Frame 140TC	Frame 180TC	Frame 210TC
20	M60005	M60006	M60007	86	M60292	M60304	M60320
25	M60286	M60297	M60313	101	M94433*	M60305	M60321
30	M60287	M60298	M60314	121	M61241	M60306	M60322
36	M60288	M60299	M60315	144	M61242	M60307	M60323
40	M60289	M60300	M60316	162	M60293	M60308	M60324
50	M60290	M60301	M60317	192	M61243	M60309	M60325
60	M60302	M94432*	M60318	240	M60294	M60310	M60326
70	M60291	M60303	M60319				

**Note:** Shaded ratings are available in special 3-week ("Red Baron") cycle. Units are available in Standard, XT, or Easy Clean gearcase with integral cast foot or flange. Mark order: RED BARON.

♦ Add mounting designation, if other than "K." Order numbers are for K shaft position. Order by description all others.

\* Standard in stock in "K" shaft position.

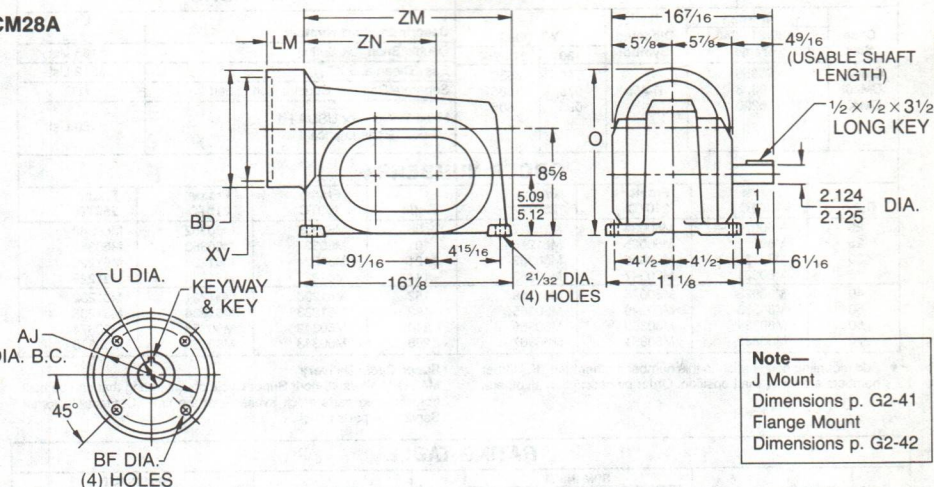
### Super Cycle Delivery

MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for parts check.

### RATING TABLE

Ratio	Rating Data	RPM INPUT				Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860			2500	1750	1160	860
10	Output RPM	250	175	116	86	60	Output RPM	42	29	19	14
	Output Torque, in.lb.	3003	3688	4519	5026		Output Torque, in.lb.	9196	10,725	12,677	13,854
	Output HP (Max.)	11.92	10.24	8.32	6.86		Output HP (Max.)	6.04	4.93	3.86	3.13
	Input HP (Max.)	12.98	11.25	9.21	7.67		Input HP (Max.)	6.86	5.64	4.50	3.68
	OHL Output Shaft	3984	4307	4927	5309		OHL Output Shaft	5700	5600	5500	5400
12.7	Output RPM	207	138	91	68	70	Output RPM	35	25	16	12
	Output Torque, in.lb.	3617	4442	5443	6054		Output Torque, in.lb.	8904	10,506	12,588	14,319
	Output HP (Max.)	11.92	10.24	8.32	6.86		Output HP (Max.)	4.94	4.08	3.24	2.73
	Input HP (Max.)	12.98	11.25	9.21	7.67		Input HP (Max.)	5.75	5.00	3.87	3.33
	OHL Output Shaft	4098	4541	5121	5601		OHL Output Shaft	5700	5600	5500	5300
15	Output RPM	167	117	77	57	86	Output RPM	29	20	13.5	10
	Output Torque, in.lb.	3350	4119	4855	4827		Output Torque, in.lb.	9434	10,793	13,359	14,701
	Output HP (Max.)	8.86	7.63	5.96	4.39		Output HP (Max.)	4.36	3.49	2.87	2.34
	Input HP (Max.)	9.79	8.49	6.69	5.04		Input HP (Max.)	5.14	4.15	3.46	2.89
	OHL Output Shaft	4386	4862	5503	6044		OHL Output Shaft	5700	5600	5400	5200
18	Output RPM	138	97	64	48	101	Output RPM	25	17	11.5	8.5
	Output Torque, in.lb.	4035	4962	5848	5814		Output Torque, in.lb.	7858	9098	10,867	10,970
	Output HP (Max.)	8.86	7.63	5.96	4.39		Output HP (Max.)	3.12	2.53	2.00	1.50
	Input HP (Max.)	9.79	8.49	6.69	5.04		Input HP (Max.)	3.83	3.16	2.55	1.96
	OHL Output Shaft	4630	5126	5796	6342		OHL Output Shaft	5800	5700	5600	5600
20	Output RPM	125	87	58	43	121	Output RPM	21	14	9	7
	Output Torque, in.lb.	5176	6818	8811	9643		Output Torque, in.lb.	7966	9130	11,100	12,505
	Output HP (Max.)	10.27	9.47	8.11	6.58		Output HP (Max.)	2.63	2.11	1.70	1.42
	Input HP (Max.)	11.21	10.41	8.98	7.40		Input HP (Max.)	3.33	2.72	2.26	2.00
	OHL Output Shaft	4700	5200	5700	5800		OHL Output Shaft	5800	5700	5600	5500
25	Output RPM	104	70	48	36	144	Output RPM	17	12	8	6
	Output Torque, in.lb.	6220	8199	9322	10,325		Output Torque, in.lb.	9497	10,885	13,355	14,910
	Output HP (Max.)	10.35	9.55	7.20	5.86		Output HP (Max.)	2.63	2.11	1.70	1.42
	Input HP (Max.)	11.30	10.50	7.98	6.56		Input HP (Max.)	3.33	2.72	2.26	2.00
	OHL Output Shaft	5000	5500	5700	5600		OHL Output Shaft	5700	5600	5500	5200
30	Output RPM	83	58	39	29	162	Output RPM	15	11	7	5
	Output Torque, in.lb.	6700	8239	9710	9653		Output Torque, in.lb.	7302	8605	10,581	11,716
	Output HP (Max.)	8.86	7.63	5.96	4.39		Output HP (Max.)	1.81	1.49	1.22	1.00
	Input HP (Max.)	10.00	8.49	6.69	5.04		Input HP (Max.)	2.51	2.14	1.80	1.54
	OHL Output Shaft	5300	5800	5700	5700		OHL Output Shaft	5800	5700	5600	5600
36	Output RPM	69	48	32	24	192	Output RPM	13	9	6	4.5
	Output Torque, in.lb.	7988	9389	10,684	11,510		Output Torque, in.lb.	8706	10,260	12,616	13,969
	Output HP (Max.)	8.86	7.29	5.50	4.39		Output HP (Max.)	1.81	1.49	1.22	1.00
	Input HP (Max.)	10.00	8.12	6.18	5.04		Input HP (Max.)	2.51	2.14	1.80	1.54
	OHL Output Shaft	5500	5700	5600	5600		OHL Output Shaft	5700	5600	5500	5400
40	Output RPM	63	44	29	22	240	Output RPM	10	7	4.8	3.6
	Output Torque, in.lb.	7258	8393	10,347	11,348		Output Torque, in.lb.	9152	10,393	12,755	14,236
	Output HP (Max.)	7.20	5.83	4.76	3.87		Output HP (Max.)	1.52	1.21	.98	.81
	Input HP (Max.)	8.06	6.61	5.47	4.49		Input HP (Max.)	2.20	1.81	1.55	1.35
	OHL Output Shaft	5800	5700	5600	5600		OHL Output Shaft	5700	5600	5500	5300
50	Output RPM	49	35	23	17	References p. G2-44 & G2-45	Nomenclature p. G2-7				Inst. Maint. p. G2-50
	Output Torque, in.lb.	7713	8996	10,801	12,260		Modifications p. G2-75—G2-83				
	Output HP (Max.)	6.04	4.93	3.93	3.30		Parts p. G2-92 & G2-93.				
	Input HP (Max.)	6.86	5.64	4.57	3.88						
	OHL Output Shaft	5800	5700	5600	5500						

## DIMENSIONS



Frame	AJ	BD	BF	LM	U		Keyway	XV	ZM	ZN	O	Uses Key
					Min.	Max.						
140TC, 160ATC	5/8	6 23/32	13/32	33/16	.876	.877	3/16 x 3/32	4.501/4.503	16 1/32	10 15/32	12	3/16 x 3/16 x 1/4
180TC, 180ATC	7/4	9	17/32	4 5/32	1.126	1.127	1/4 x 1/8	8.500/8.502	16 19/16	10 19/16	13 1/4	1/4 x 1/4 x 1/4
210TC, 210ATC	7/4	9	17/32	4 21/32	1.376	1.377	5/16 x 5/32	8.500/8.502	16 19/16	10 19/16	13 1/4	9/16 x 5/16 x 2/4

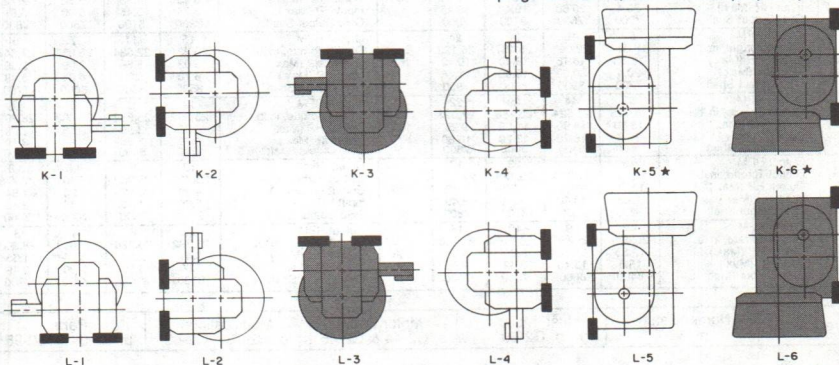
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions **NOT** recommended. These should be avoided.

\*Countershaft is located on the concealed side of these units.

## INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.





# MASTER XL Size CM40

## Combination Reduction. 3-Piece Coupled C-face Reducer

ORDER INFORMATION					OPTIONS		
Case Size	List Price	Discount Symbol	Wt. (lbs.)		Description/Part Number	List Price	
	180/210/250 Frame		180	210/250			
	CM40A		\$6055	D-46b	540	550	Double Shaft (LK Suffix)
CM40F	6308	575	585		Easy Clean and XT	\$212 List	
CM40J	6220	595	605		Separate Reducer Construction (Shaft In)	N/C	
					Mobil SHC634 or USDA H1 Food Grade Lubricant	\$150 List	
ORDER NUMBERS ♦							
Ratio	Frame 180TC	Frame 210TC	Frame 250TC	Ratio	Frame 180TC	Frame 210TC	Frame 250TC
20	M60021	M60024	M16217	86	M60336	M60352	M60368
25	M60022	M60025	M61218	101	M60337	M60353	M60369
30	M60330	M60346	M60362	121	M61224	M61225	M61226
36	M60331	M60347	M60363	144	M61227	M61228	M61229
40	M60023	M60026	M61219	162	M61230	M61231	M61232
50	M60333	M60349	M60365	192	M61233	M61234	M61235
60	M60334	M60350	M60366	240	M60342	M60358	M60374
70	M60335	M60351	M60367	288	M60343	M60359	M60375

♦ Add mounting designation to this number if other than "K." Order numbers are for K shaft position. Order by description all others.

### Super Cycle Delivery

MASTER offers 48-hour Super Cycle on any rating that can be built from finished parts stock available at the time. Contact Customer Service for parts check.

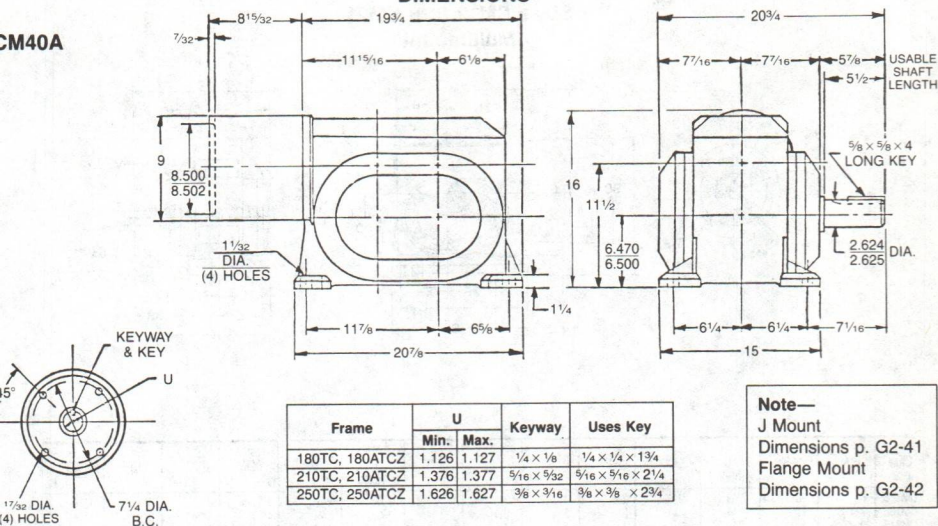
## RATING TABLE

Ratio	Rating Data	RPM INPUT				Ratio	Rating Data	RPM INPUT			
		2500	1750	1160	860			2500	1750	1160	860
10	Output RPM	250	175	116	86	70	Output RPM	35	25	16	12
	Output Torque, in.lb.	6622	8187	10,180	12,054		Output Torque, in.lb.	22,118	25,783	26,557	26,795
	Input HP (Max.)	26.3	22.7	18.7	16.5		Output HP (Max.)	12.54	10.23	8.28	6.33
	Input HP (Max.)	28.44	24.64	20.42	18.06		Input HP (Max.)	14.5	11.89	8.28	6.33
	OH Output Shaft	5879	6517	7344	8004		OH Output Shaft	8300	8000	7900	7900
15	Output RPM	167	117	77.3	57.3	86	Output RPM	29	20	13.5	10
	Output Torque, in.lb.	7883	9800	12,028	13,177		Output Torque, in.lb.	22,220	23,356	27,036	26,707
	Input HP (Max.)	20.85	18.15	14.77	13.99		Output HP (Max.)	10.62	8.49	6.00	4.39
	Input HP (Max.)	22.9	20.3	16.41	13.46		Input HP (Max.)	12.6	10.12	7.50	5.53
	OH Output Shaft	6623	7337	8277	8719		OH Output Shaft	8300	8000	7700	7700
20	Output RPM	125	87	58	43	101	Output RPM	25	17	11.5	8.5
	Output Torque, in.lb.	10,745	15,659	20,212	24,024		Output Torque, in.lb.	20,814	22,851	26,623	28,110
	Input HP (Max.)	21.32	21.75	18.61	16.40		Output HP (Max.)	8.26	6.35	4.90	3.84
	Input HP (Max.)	23.20	23.70	20.40	17.90		Input HP (Max.)	10.16	7.87	6.26	5.14
	OH Output Shaft	6200	6800	7600	8200		OH Output Shaft	8400	8200	7700	7600
25	Output RPM	104	70	48	36	121	Output RPM	21	14	9.6	7
	Output Torque, in.lb.	12,356	18,008	22,784	24,989		Output Torque, in.lb.	19,432	21,295	24,590	26,362
	Input HP (Max.)	21.32	21.75	18.24	14.83		Output HP (Max.)	6.43	4.93	3.77	3.00
	Input HP (Max.)	23.20	23.70	20.00	16.30		Input HP (Max.)	8.74	6.45	5.15	4.19
	OH Output Shaft	6500	7100	8000	8000		OH Output Shaft	8500	8400	8100	7900
30	Output RPM	83	58	39	29	144	Output RPM	17	12	8	6
	Output Torque, in.lb.	14,006	19,599	24,056	26,353		Output Torque, in.lb.	22,509	24,667	27,344	27,992
	Input HP (Max.)	18.53	18.15	14.77	11.99		Output HP (Max.)	6.43	4.93	3.82	2.72
	Input HP (Max.)	20.4	20.00	16.40	13.46		Input HP (Max.)	8.74	6.45	5.00	3.81
	OH Output Shaft	7000	7600	8100	7900		OH Output Shaft	8300	8100	7800	7800
36	Output RPM	69	46	32	24	162	Output RPM	15	11	7	5
	Output Torque, in.lb.	16,341	22,865	26,467	26,122		Output Torque, in.lb.	20,231	22,384	25,537	27,647
	Input HP (Max.)	18.53	18.15	13.40	10.19		Output HP (Max.)	5.02	3.89	2.99	2.36
	Input HP (Max.)	20.4	20.00	15.00	11.46		Input HP (Max.)	6.70	5.36	4.24	3.49
	OH Output Shaft	7200	7900	8000	7900		OH Output Shaft	8500	8300	8000	7700
40	Output RPM	63	44	29	22	192	Output RPM	13	9	6	4.5
	Output Torque, in.lb.	15,925	21,524	25,186	27,091		Output Torque, in.lb.	23,392	25,882	27,688	28,289
	Input HP (Max.)	15.80	14.95	11.59	9.25		Output HP (Max.)	5.02	3.89	2.76	2.09
	Input HP (Max.)	17.6	16.70	13.20	10.80		Input HP (Max.)	6.70	5.36	3.94	3.10
	OH Output Shaft	7600	8400	8000	7800		OH Output Shaft	8700	8000	7700	7600
50	Output RPM	49	35	23	17	240	Output RPM	10	7	4.8	3.6
	Output Torque, in.lb.	17,757	21,870	25,125	27,119		Output Torque, in.lb.	23,321	25,932	28,401	27,778
	Input HP (Max.)	13.55	11.68	8.20	6.65		Output HP (Max.)	4.08	3.12	2.26	1.64
	Input HP (Max.)	15.5	13.40	9.59	7.94		Input HP (Max.)	5.69	4.50	3.43	2.60
	OH Output Shaft	8200	8300	8100	7800		OH Output Shaft	8200	7900	7600	7500
60	Output RPM	42	29	19	14	288	Output RPM	8.7	6	4	3
	Output Torque, in.lb.	20,489	25,234	26,716	29,230		Output Torque, in.lb.	23,792	26,228	27,658	28,000
	Input HP (Max.)	13.55	11.68	8.20	6.65		Output HP (Max.)	3.41	2.63	1.84	1.38
	Input HP (Max.)	15.5	13.40	9.59	7.94		Input HP (Max.)	5.00	3.96	3.00	2.29
	OH Output Shaft	8400	8000	7900	7500		OH Output Shaft	8100	7900	7700	7700

References	Nomenclature p. G2-7	Inst. Maint. p. G2-50	Motor Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83	Parts p. G2-94 & G2-95
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CM40A

## DIMENSIONS



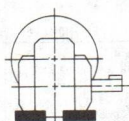
## MOUNTING POSITIONS

**Note:** Shaded units indicate mounting positions NOT recommended. These should be avoided.

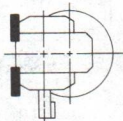
\*Countershaft is located on the concealed side of these units.

## INCLINED MOUNTING

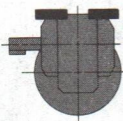
All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.



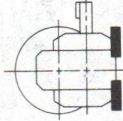
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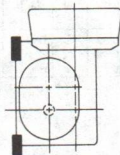
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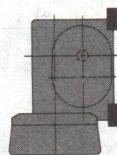
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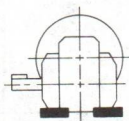
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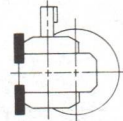
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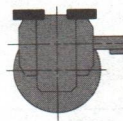
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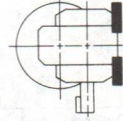
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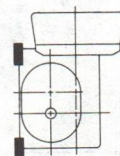
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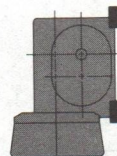
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L-4



L-5



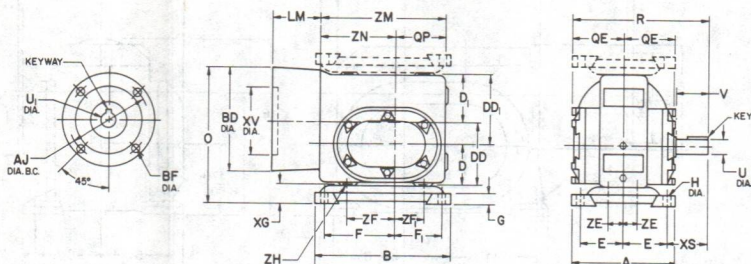
L-6



# Dimensions

## MASTER XL C-FACE RIGHT ANGLE REDUCER

### Sizes CM12 thru CM21 Multimount



Case Size	A	B	D Ⓜ	DD	E	F	F <sub>1</sub>	G	H (4) Holes	D <sub>1</sub>	DD <sub>1</sub>	QE	QP	XG
CM12B	6	8	2 1/16	3 1/16	2 1/2	4	3	1/2	1 13/32	2 1/16	3 1/16	3 1/16	3 1/8	1 1/16
CM16B	7 3/4	10	2 1/16	4 1/16	3 1/4	5 1/2	3 1/2	3/8	1 13/32	2 1/16	4 7/16	3 3/16	3 1/4	1 1/16
CM21B	9 1/4	12 1/4	4 1/16	6 1/16	4	7	4	3/4	1 17/32	2 1/16	5 5/16	4 1/8	4 13/32	1 1/16

Case Size	ZE	ZF	ZF <sub>1</sub>	OUTPUT SHAFT						XS	FOR MOTOR FRAMES:											
				ZH Ⓜ	U Ⓜ	V Ⓜ	Keyway	48Y/56C														
								Wt. (Lbs.)	0 ▲		R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> * Keyway I	XV ◆	ZM	ZN			
CM12B	1 1/16	2 1/16	1 11/16	3/8-16 TAP 3/4 DP.	7/8	2	3/8 x 3/8 x 1 1/4	2 1/16	30	8 23/64	7 1/16	5 7/8	6 23/32	1 3/32	3 3/16	5/8	3/8 x 3/32	4 1/2	8 1/4	4 13/32		
CM16B	1 5/8	4 1/4	2 1/4	3/8-16 TAP 3/4 DP.	1 1/8	2 1/2	1/4 x 1/4 x 1 3/4	2 3/4	61	9 23/64	9 1/16	5 7/8	6 23/32	1 3/32	3 3/16	5/8	3/8 x 3/32	4 1/2	10 1/2	8 1/8		
CM21B	1 7/8	4 5/8	2 5/8	1/2-13 TAP 1 1/2 DP.	1 1/2	3 1/4	3/8 x 3/8 x 2 1/2	4	124	11 3/64	12 1/8	5 7/8	6 23/32	1 3/32	3 3/16	5/8	3/8 x 3/32	4 1/2	12 1/2	7 3/4		

FOR MOTOR FRAMES:												180TC/180ATCZ Ⓜ												
140TC/160ATC												180TC/180ATCZ Ⓜ												
Case Size	Wt. (Lbs.)	0 ▲	R §	AJ	BD	(4) Holes	BF LM	Input Bore		XV ◆	ZM	ZN	Wt. (Lbs.)	0 ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore		XV ◆	ZM	ZN
								U <sub>1</sub> *	Keyway I											U <sub>1</sub> *	Keyway ★			
CM12B	30	8 3/4	7 1/16	5 7/8	6 23/32	1 3/32	3 3/16	3/8	1/2	4 1/2	8 1/4	4 13/32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
CM16B	61	9 23/64	9 1/16	5 7/8	6 23/32	1 3/32	3 3/16	3/8	1/2	4 1/2	10 1/2	8 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
CM21B	124	11 3/64	12 1/8	5 7/8	6 23/32	1 3/32	3 3/16	3/8	1/2	4 1/2	12 1/2	7 3/4	142	13 1/64	12 1/8	7 1/4	9 7/32	1 7/32	4 5/8	1 1/4 x 1/8	8 1/2	13 1/16	8 1/2	

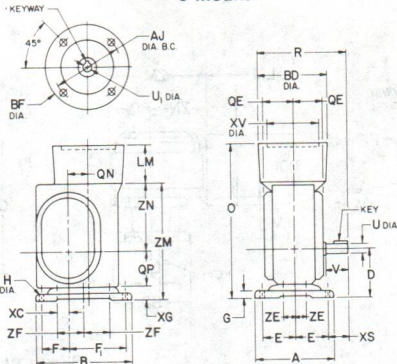
□ + 0 - 1/32.  
 ‡ Usable shaft length.  
 ▲ + .0000 - .0005.  
 Ⓜ 8 holes (4 top, 4 bottom)

\* + .001 + .002.  
 † + .001 + .003.  
 ‡ + .000 + .002.

▲ At highest point.  
 § At widest point (excluding foot).  
 ‡ Using a 3/16 x 3/16 x 1 1/4 key.  
 \* Using a 1/4 x 1/4 x 1 1/4 key.  
 Ⓜ ATCZ Shaft extrn. must match TC extrn.

References	Std. Features p. G2-2—G2-4	Ratings p. G2-10 & G2-13	Selection p. G2-6 & G2-7	Mtr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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# Sizes CM12 thru CM40 J-Mount



Case Size	A	B	D ⊙	E	F	F <sub>1</sub>	G	H (4) Holes	QE	QN	QP	XC	XG
CM12J	5 1/2	6 5/8	4 1/8	2 1/4	2 1/8	3 11/16	3/4	1 1/2	3 1/8	1 1/2	3 1/8	1 1/8	1 1/8
CM16J	8	8	5 1/2	3 1/2	2 1/8	4 1/8	3/4	1 3/4	3 3/8	2	3 1/8	1 1/8	1 1/8
CM21J	9 1/4	12 1/4	6 3/4	4 1/2	4 1/8	6 1/8	3/4	1 7/8	4 1/8	2 5/8	4 1/8	2 1/8	1 1/8
CM28J	9 1/4	12 1/4	7 1/2	4	5 1/8	5 11/16	3/4	1 7/8	5 1/8	3	5 1/8	2 1/8	1 1/8
CM40J	15	20 1/2	9 1/2	6 1/4	7 1/8	10 9/16	1 1/8	2 1/8	7 1/8	5	6 1/2	4 1/4	3

OUTPUT SHAFT									FOR MOTOR FRAME:											
Case Size	ZE	ZF	ZH (4) Holes	U ⬇	V ⬆	Key	XS	48Y/56C												
								Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> Keyway ⬆	XV ⬆	ZM ⊙	ZN		
CM12J	1 1/8	1 3/4	3/8-16 TAP 3/4 DP.	7/8	2	3/16 x 3/16 x 1 1/4	2 1/8	32	12 1/2	8 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3 1/8	3/8 x 3/32	4 1/2	8 7/8	4 3/4	
CM16J	1 1/8	2 1/4	3/8-16 TAP 3/4 DP.	1 1/8	2 1/2	1/4 x 1/4 x 1 1/4	2 1/8	63	14 1/2	9 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3 1/8	3/8 x 3/32	4 1/2	11 1/2	6 1/8	
CM21J	1 1/8	3 1/4	1/2-13 TAP 1 1/8 DP.	1 1/2	3 1/4	3/8 x 3/8 x 2 1/2	4	124	17 1/2	12 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3 1/8	3/8 x 3/32	4 1/2	14 1/2	7 3/4	
CM28J	1 1/8	3 1/4	1/2-13 TAP 1 1/8 DP.	2 1/8	4 1/8	1/2 x 1/2 x 3 1/2	6 1/8	215	21 3/4	16 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3 1/8	3/8 x 3/32	4 1/2	17 1/2	10 1/8	
CM40J	2 1/4	5 1/8	7/8-9 TAP 1 1/8 DP.	2 1/8	5 1/2	3/4 x 3/4 x 4	7 1/8													

FOR MOTOR FRAMES:																							
Case Size	140TC/160ATC												180TC/180ATC +										
	Wt. (Lbs.)	Q ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> Keyway ⌄	XV ◆	ZM ⊙	ZN	Wt. (Lbs.)	Q ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> Keyway ⌄	XV ◆	ZM ⊙	ZN	
CM12J	32	12 1/2	8 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3/8 x 3/32	4 1/2	8 7/8	4 3/4												
CM16J	63	14 1/2	9 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3/8 x 3/32	4 1/2	11 1/2	6 1/8												
CM21J	124	17 1/2	12 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3/8 x 3/32	4 1/2	14 1/2	7 3/4												
CM28J	215	21 3/4	16 1/8	5 1/8	6 1/2	1 1/2	3 1/8	3/8 x 3/32	4 1/2	17 1/2	10 1/8												
CM40J																							

Case Size		FOR MOTOR FRAMES:																					
		210TC/210ATC +											250TC/250ATC +										
		Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> Keyway ⬇	XV ⬇	ZM ⊙	ZN	Wt. (Lbs.)	O ▲	R §	AJ	BD	BF (4) Holes	LM	Input Bore U <sub>1</sub> Keyway ⬇	XV ⬇	ZM ⊙	ZN
CM28J	238	23 3/4	16 1/8	7 1/4	9 1/2	1 1/2	4 1/2	3/8 x 3/32	8 1/2	18 1/8	10 1/8												
CM40J	605	29 3/4	20 1/4	7 1/4	9 1/2	1 1/2	4 1/2	3/8 x 3/32	8 1/2	21 1/8	11 1/8												

⊙ "D" varies + 0, - 1/32.  
⬆ Usable shaft length.  
▲ + .0000 - .0005.

▲ At highest point.  
§ At widest point.  
⊙ Includes bolt-on foot.

\* + .001 + .002  
⬆ + .001 + .003.  
⬆ + .000 + .002.

⬆ Using 3/16 x 3/16 x 1 1/4 key.  
\* Using 1/4 x 1/4 x 1 1/4 key.  
⬆ Using 1/8 x 1/8 x 2 1/4 key.  
▲ Using 3/8 x 3/8 x 2 1/4 key.  
+ ATCZ Shaft extn. must match TC extn.

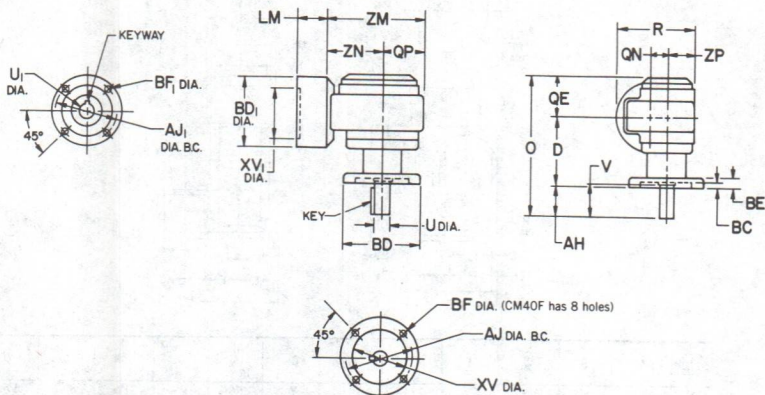
References	Std. Features p. G2-2—G2-4	Ratings p. G2-10 & G2-13	Selection p. G2-6 & G2-7	Mtr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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# Dimensions

## MASTER XL C-FACE RIGHT ANGLE REDUCER

### Sizes CM16 thru CM40 Flange Mount



Case Size	D	BE	BF (4) Holes	AH	AJ	BC	BD	QE	QN	QP	XV	ZP	Output Shaft			FOR MOTOR FRAMES:													
													U	V	Key	48Y/56C													
																Wt. (Lbs.)	O	R	S	AJ <sub>1</sub>	BD <sub>1</sub>	BF <sub>1</sub> (4) Holes	LM	Input Bore		XV <sub>1</sub>	ZM	ZN	
																								U <sub>1</sub>	Keyway I				
CM12F	4 7/8	7/16	13/32	2	4	1/8	5	3 1/2	1 1/2	3 1/8	3	2 7/8	7/8	2 1/8	3/16 x 3/16 x 1 1/4	34	10 1/4	7 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8 x 3/32	4 1/2	7 7/8	4 3/4	4 1/2	9 1/4	6 1/4
CM16F	5 1/2	7/8	1/2	2 1/2	6 1/8	1/8	7	3 3/4	2	3 1/2	5 1/4	3	1 1/8	2 3/8	1/4 x 1/4 x 1 3/4	66	11 1/4	8 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8 x 3/32	4 1/2	9 1/4	6 1/4	4 1/2	12 3/4	7 1/4
CM21F	6 1/8	7/8	1/2	3 1/8	8 1/8	1/8	10	4 1/8	2 1/2	4 1/8	6 1/4	4 1/8	1 1/8	3 1/4	3/8 x 3/8 x 2 1/2	121	14 1/4	10 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8 x 3/32	4 1/2	12 3/4	7 1/4	4 1/2	16 3/4	10 1/4
CM28F	7 1/8	7/8	1/2	4 1/8	12 1/8	1/8	14	5 1/8	3 1/2	5 1/8	10 1/8	5 1/2	2 1/4	4 1/8	1/2 x 1/2 x 3 1/2	226	18 1/4	12 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8 x 3/32	4 1/2	16 3/4	10 1/4	4 1/2	21 3/4	11 1/4
CM40F	10	7/8	1/2	5 1/8	15 1/8	1/8	16 1/2	7 1/8	5	6 1/2	13 1/2	6 1/2	2 1/2	5 1/2	3/4 x 3/4 x 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
FOR MOTOR FRAMES:																													
Case Size	140TC/160ATC													180TC/180ATC +															
	Wt. (Lbs.)	O	R	S	AJ <sub>1</sub>	BD <sub>1</sub>	BF <sub>1</sub> (4) Holes	LM	Input Bore		XV <sub>1</sub>	ZM	ZN	Wt. (Lbs.)	O	R	S	AJ <sub>1</sub>	BD <sub>1</sub>	BF <sub>1</sub> (4) Holes	LM	Input Bore		XV <sub>1</sub>	ZM	ZN			
									U <sub>1</sub>	Keyway I												U <sub>1</sub>	Keyway I						
																											U <sub>1</sub>	Keyway I	
CM12F	34	10 1/4	7 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8	7/8	3/16 x 3/32	4 1/2	7 7/8	4 3/4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
CM16F	66	11 1/4	8 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8	7/8	3/16 x 3/32	4 1/2	9 1/4	6 1/4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
CM21F	121	14 1/4	10 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8	7/8	3/16 x 3/32	4 1/2	12 3/4	7 1/4	139	14 1/4	11 1/4	7 1/4	9 1/2	17/32	4 1/8	1 1/8	1/4 x 1/4	8 1/2	16 3/4	10 1/4	8 1/4	8 1/4		
CM28F	226	18 1/4	12 1/4	5 1/8	6 1/2	13/32	3 1/8	3 1/8	7/8	3/16 x 3/32	4 1/2	16 3/4	10 1/4	239	18 1/4	13 1/4	7 1/4	9 1/2	17/32	4 1/8	1 1/8	1/4 x 1/4	8 1/2	16 3/4	10 1/4	8 1/4	8 1/4		
CM40F	...	...	...	...	...	...	...	...	...	...	...	...	...	575	20 1/4	15 1/4	7 1/4	9	17/32	8 1/8	1 1/8	3/8 x 3/8	8 1/2	21 3/4	11 1/4	11 1/4	11 1/4		
FOR MOTOR FRAMES:																													
Case Size	210TC/210ATC +													250TC/250ATC +															
	Wt. (Lbs.)	O	R	S	AJ <sub>1</sub>	BD <sub>1</sub>	BF <sub>1</sub> (4) Holes	LM	Input Bore		XV <sub>1</sub>	ZM	ZN	Wt. (Lbs.)	O	R	S	AJ <sub>1</sub>	BD <sub>1</sub>	BF <sub>1</sub> (4) Holes	LM	Input Bore		XV <sub>1</sub>	ZM	ZN			
									U <sub>1</sub>	Keyway I												U <sub>1</sub>	Keyway I						
																											U <sub>1</sub>	Keyway I	
CM21F	149	14 1/4	11 1/4	7 1/4	9 1/2	17/32	4 1/8	3 1/8	3/16 x 3/32	8 1/2	12 3/4	8 1/4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
CM28F	249	18 1/4	13 1/4	7 1/4	9 1/2	17/32	4 1/8	3 1/8	3/16 x 3/32	8 1/2	12 3/4	8 1/4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
CM40F	585	20 1/4	15 1/4	7 1/4	9 1/2	17/32	4 1/8	3 1/8	3/16 x 3/32	8 1/2	12 3/4	8 1/4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
* "D" varies + 0 - 1/32. ▲ At highest point. * At lowest point. * + .001 = .002. ◆ + .001 + .003. * + .000 + .002. I Using 3/16 x 3/16 x 1 1/4 key. * Using 1/4 x 1/4 x 1 1/4 key. ◆ Using 3/16 x 3/16 x 2 1/4 key. * Using 3/8 x 3/8 x 2 1/4 key. + ATC Shaft extn. must match TC extn.																													

⊕ "D" varies ± 0-1/32.  
 ‡ Usable shaft length.  
 † ± .0000 - .0005.

▲ At highest point.  
 ‡ At widest point.  
 \* ± .001 ± .002.

◆ ± .001 ± .003  
 ‡ ± .000 ± .002  
 † Using 3/16 x 3/16 x 1 1/4 key.

★ Using 3/4 x 1/4 x 1 1/4 key.  
 † Using 3/8 x 3/8 x 2 1/4 key.  
 ‡ Using 3/4 x 3/4 x 2 1/4 key.  
 + ATCZ Shaft extn. must match TC extn.

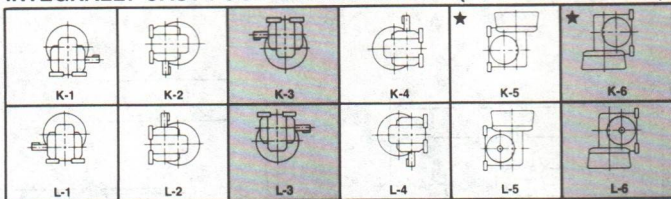
References	Std. Features p. G2-2—G2-4	Ratings p. G2-10 & G2-13	Selection p. G2-6 & G2-7	Mtr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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# Mounting Positions

## C-Face Reducer Shown

Mounting positions are labeled by looking at reducer from opposite driven end.

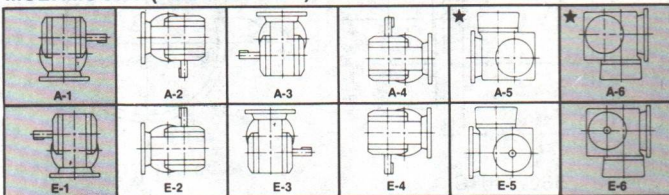
## INTEGRALLY CAST FOOT OR MULTIMOUNT (FOOT ON BOTTOM)



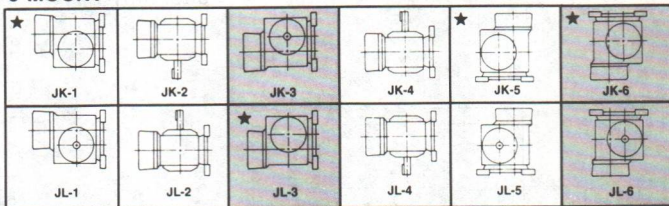
## INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , so that the oil plugs can be repositioned for proper operation.

## MULTIMOUNT (FOOT ON TOP)



## J-MOUNT

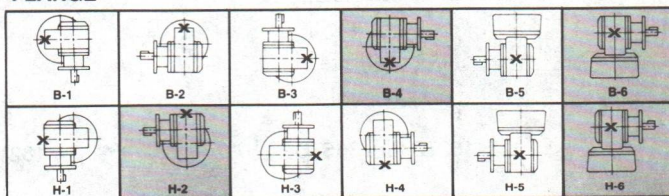


■ Shaded boxes indicate mounting positions **not** recommended. These should be avoided.

★ Output shaft is located on the concealed side of these units.

× Reference surface

## FLANGE



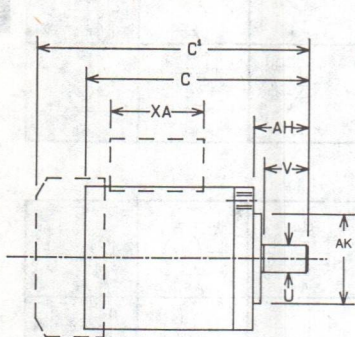
—Avoidance of flooded input shaft seals will result in optimum seal life.

**NOTE: A FLOODED INPUT SHAFT SEAL SHOULD BE AVOIDED TO ENSURE OPTIMUM SEAL LIFE. SHADED BOXES SHOWN ABOVE ARE THOSE MOUNTING POSITIONS WHICH RESULT IN A FLOODED INPUT SEAL.**

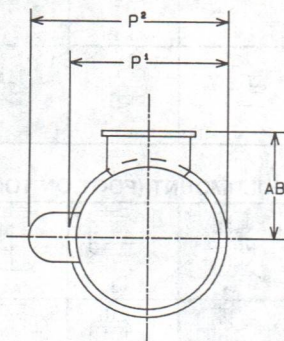
References	Std. Features p. G2-2—G2-4	Ratings p. G2-10 & G2-13	Selection p. G2-6 & G2-7	Mtr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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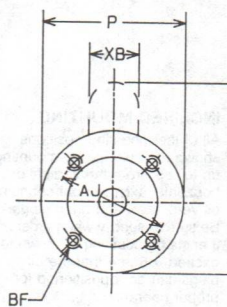
# Electric Motor Dimensions



56C/140TC



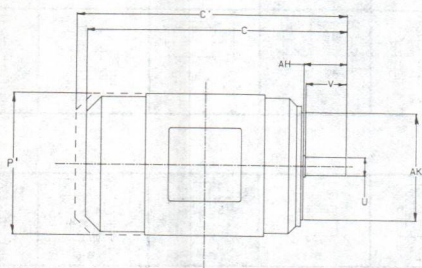
TEFC



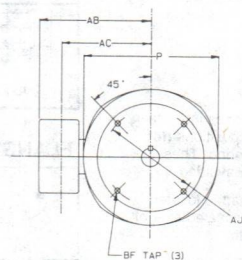
OPEN  
TENV

56C/140TC

56C/140TC



182TC thru 365TC



182TC thru 365TC

## DIMENSIONS ARE LISTED IN INCHES

Frame	C	C <sub>1</sub>	V	P	P <sub>1</sub>	P <sub>2</sub>	AB	XA	XB	AJ	AK	BF	U	AH
AA56C/EA56C	9.50	—	1.88	5.62	—	7.50	—	4.25	1.90	5.88	4.50	⅝-16	.625	2.06
AB56C/EB56C	10.25	—	1.88	5.62	—	7.50	—	4.25	1.90	5.88	4.50	⅝-16	.625	2.06
AC56C/EC56C	10.50	10.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅝-16	.625	2.06
AD56C/ED56C	11.00	11.22	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅝-16	.625	2.06
AE56C/EE56C	11.50	11.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅝-16	.625	2.06
AF56C/EF56C	12.50	12.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅝-16	.625	2.06
BA56C/FA56C	10.12	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
BB56C/FB56C	11.12	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
BC56C/FC56C	12.12	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
BD56C/FD56C	13.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
BE56C/FE56C	14.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
BF56C/FF56C	15.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
BK56C/FK56C	11.62	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
FR56C	9.55	—	1.88	6.45	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
FB56C	—	11.48	1.88	6.45	7.28	8.72	4.69	4.26	1.91	5.88	4.50	⅝-16	.625	2.06
FC56C	—	12.48	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
FK56C	—	11.98	1.88	6.45	7.28	8.72	4.69	4.26	1.91	5.88	4.50	⅝-16	.625	2.06
FJ56C	—	12.92	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
FD56C	—	13.54	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
FE56C	—	14.54	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅝-16	.625	2.06
GA56C(1)	10.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
GB56C(1)	11.50	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
GC56C(1)	11.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
GD56C(1)	12.25	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
GE56C(1)	12.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
GF56C(1)	13.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
GH56C(1)	13.25	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅝-16	.625	2.06
HP56C(2)	11.19	12.51	1.77	6.45	7.38	—	4.81	—	—	5.88	4.50	⅝-16	.625	2.06
HN56C(2)	11.69	13.01	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅝-16	.625	2.06
HR56C(2)	12.31	13.63	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅝-16	.625	2.06
HM56C(2)	13.06	14.38	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅝-16	.625	2.06
HG56C(2)	13.94	15.26	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅝-16	.625	2.06
HU56C(2)	14.81	16.13	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅝-16	.625	2.06
HJ56C(2)	15.31	16.63	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅝-16	.625	2.06
FB140TC(3)	—	11.54	2.25	6.45	7.28	8.72	—	4.26	1.91	5.88	4.50	⅝-16	.875	2.12
FC140TC(3)	—	12.54	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅝-16	.875	2.12
FK140TC(30)	—	12.04	2.25	6.45	7.28	8.72	—	4.26	1.91	5.88	4.50	⅝-16	.875	2.12
FJ140TC(3)	—	12.98	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅝-16	.875	2.12
FD140TC(3)	—	13.60	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅝-16	.875	2.12
FE140TC(3)	—	14.60	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅝-16	.875	2.12
143TC	12.62	13.81	2.25	6.45	7.28	—	4.70	—	—	5.88	4.50	⅝-16	.875	2.12
145TC	13.50	14.81	2.25	6.45	7.28	—	4.70	—	—	5.88	4.50	⅝-16	.875	2.12

## C-FACE BRAKE MOTOR DIMENSIONS

FA56C(4)	14.95	—	1.88	6.45	—	—	4.69	—	—	5.88	4.5	⅝-16	.6250	2.06
FB56C(4)	15.95	16.88	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅝-16	.6250	2.06
FC56C(4)	16.45	17.38	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅝-16	.6250	2.06
FD56C(4)	16.95	17.88	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅝-16	.6250	2.06
FJ56C(4)	17.39	18.32	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅝-16	.6250	2.06
FE56C(4)	18.02	18.94	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅝-16	.6250	2.06
FF56C(4)	19.02	19.94	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅝-16	.6250	2.06

### NOTES:

Dimensions are for reference only—for detailed dimensions, contact Reliance.

- Explosion proof 56C face 5.62" body motors have ⅜"-14 NPT female lead opening parallel to shaft in front endshield.
- Explosion proof 56C face 6.45" body motors have ⅜"-14 NPT male lead nipple perpendicular to shaft in front endshield.
- 56C/140 TEFC C-face motors have top mounted F<sub>1</sub> F<sub>2</sub> conduit box dimensioned accordingly.
- Brakemotor C Dimension includes Brake assembled to drip-proof or TEFC Motor.



# A-C Right Angle Compatibility Chart

	Frame	Encl.	Accessories	W & CM12A	W & CM16A	W & CM21A	W & CM28A	W & CM40A
56	56C	TEFC	ALL					
		XPFC	ALL					
140TC	143TC	TEFC	ALL	X				
		XPFC	ALL	X				
	145TC	TEFC	ALL	X				
		XPFC	ALL	X				
180TC	182TC	TEFC	W/O ACC.					
			BRAKE					
		XPFC	W/O ACC.					
			BRAKE					
	184TC	TEFC	W/O ACC.					
			BRAKE					
		XPFC	W/O ACC.					
			BRAKE					
210TC	213TC	TEFC	W/O ACC.					
			BRAKE					
		XPFC	W/O ACC.					
			BRAKE					
	215TC	TEFC	W/O ACC.					
			BRAKE					
		XPFC	W/O ACC.					
			BRAKE					
250TC(1)	254TC	TEFC	W/O ACC.					
			BRAKE					
		XPFC	W/O ACC.					
			BRAKE				X	
	256TC	TEFC	W/O ACC.					
			BRAKE					
		XPFC	W/O ACC.					
			BRAKE				X	

□ — NOT ACCEPTABLE

■ — ACCEPTABLE COMBINATIONS

⊗ — MOTOR MUST BE FOOT SUPPORTED  
AND CAREFULLY ALIGNED

ACC — ACCESSORIES

PROT — PROTECTED

TEFC — TOTALLY ENCLOSED FAN-COOLED

XPFC — EXPLOSION-PROOF FAN-COOLED

TACH — MOTOR MOUNTED TACHOMETER

BRK. TACH — BRAKE AND TACHOMETER

(1) On W28 and C28 specify 250 frame motor with  
210 C-face and shaft dimensions.

References	Ratings p. G2-8—G2-13	Selection p. G2-6 & G2-7	Mtr. Dim. p. G2-44 & G2-45
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# -C Right Angle Compatibility Chart

heavy motor or too small gearbox can cause broken mounting feet, C-flanges, etc.

To avoid this, check these compatibility charts when applying non-standard combinations of AC or DC motors/gearheads.

THESE MOTORS APPLICABLE ONLY WHEN NEMA A-C C-FACE SHAFT DIMENSIONS ARE USED.

Frame	Encl.	Accessories	W & CM12A	W & CM16A	W & CM21A	W & CM28A	W & CM40A
56	ALL	ALL					
DB1800A1	DB1810 ATY (1)	PROT.	W/O ACC.	X	X		
		TENV	TACH.	X	X		
			BRAKE	X	X		
			BRK. & TACH.	X	X		
	DB1810 ATCZ (2)	PROT.	W/O ACC.				
		TENV	TACH.				
			BRAKE				
			BRK. & TACH.				
	DB1811 ATCZ (2)	PROT.	W/O ACC.				
		TENV	TACH.				
		TEFC	BRAKE				
			BRK. & TACH.				
B1800AT	B1811ATCZ (2)	PROT. & TENV	W/O ACC.				
			TACH.				
			BRAKE				
			BRK. & TACH.		X	X	
		TEFC	W/O ACC.				
			TACH.				
			BRAKE				
			BRK. & TACH.		X	X	
	B1812ATCZ (2)	PROT. & TENV	W/O ACC.				
			TACH.				
			BRAKE				
			BRK. & TACH.		X	X	
		TEFC	W/O ACC.				
			TACH.				
			BRAKE		X	X	
			BRK. & TACH.		X	X	
	B1812ATCZ (2)	PROT. & TENV	W/O ACC.				
			TACH.				
			BRAKE				
			BRK. & TACH.		X	X	
		TEFC	W/O ACC.				
			TACH.				
			BRAKE		X	X	
			BRK. & TACH.		X	X	

□ — NOT ACCEPTABLE

■ — ACCEPTABLE COMBINATIONS

☑ — MOTOR MUST BE FOOT SUPPORTED AND CAREFULLY ALIGNED

ACC — ACCESSORIES

PROT — PROTECTED

TEFC — TOTALLY ENCLOSED FAN-COOLED

XPFC — EXPLOSION-PROOF FAN-COOLED

TACH — MOTOR MOUNTED TACHOMETER

BRK. TACH — BRAKE AND TACHOMETER

(1) WITH SHAFT SAME AS 140TC

(2) WITH SHAFT SAME AS 180TC

(3) WITH SHAFT SAME AS 210TC

(4) WITH SHAFT SAME AS 250TC when used with C40 case.

Other cases available with 210 frame only. Specify 250 frame motor with 210 C-face and shaft dimensions.

Frame	Encl.	Accessories	W & CM12A	W & CM16A	W & CM21A	W & CM28A	W & CM40A
B2100AT	B2111ATCZ (3)	PROT. & TENV	W/O ACC.				
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		TEFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		XPFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
	B2112ATCZ (3)	PROT. & TENV	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		TEFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		XPFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
B2500AT	B2510ATCZ (4)	PROT. & TENV	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		TEFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		XPFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
	B2511ATCZ (4)	PROT. & TENV	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		TEFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X
		XPFC	W/O ACC.			X	X
			TACH.			X	X
			BRAKE			X	X
			BRK. & TACH.			X	X



# DC Right Angle Compatibility Chart

THESE MOTORS APPLICABLE ONLY WHEN NEMA A-C C-FACE SHAFT DIMENSIONS ARE USED.

Frame		Encl.	Accessories	W&C12A	W&C16A	W&C21A	W&C28A	W&C40A
DB160AT	DB168 ATC	PROT.	W/O ACC.					
			TACH.					
		TENV	BRAKE					
			BRK. & TACH.					
	DB169 ATC	PROT.	W/O ACC.					
			TACH.					
		TENV	BRAKE					
			BRK. & TACH.					
	DB1610 ATC	PROT.	W/O ACC.					
			TACH.					
		TENV	BRAKE					
			BRK. & TACH.					
	DB1611 ATC	PROT. & TENV	W/O ACC.					
			TACH.					
			BRAKE		x	x	x	x
			BRK. & TACH.		x	x	x	x

□ — NOT ACCEPTABLE

■ — ACCEPTABLE COMBINATIONS

☒ — MOTOR MUST BE FOOT SUPPORTED  
AND CAREFULLY ALIGNED

ACC — ACCESSORIES

PROT — PROTECTED

TENV — TOTALLY ENCLOSED NON-VENTILATED

TACH — MOTOR MOUNTED TACHOMETER

BRK. TACH — BRAKE AND TACHOMETER

References

Ratings  
p. G2-8—G2-13

Selection  
p. G2-6 & G2-7

Mtr. Dim.  
p. G2-44 & G2-45

	Frame	Encl.	Accessories	WM16A	CM16A	WM21A	CM21A	WM28A	CM28A	WM40A	CM40A
C1800AT	DC1810 ATCZ (1)	OPEN-SV OPEN-FV TENV	W/O ACC.								
			TACH.								
			BRAKE								
			BRK. & TACH.								
	DC1811 ATCZ (1)	OPEN-SV OPEN-FV TENV	W/O ACC.								
			TACH.								
			BRAKE								
			BRK. & TACH.								
	C1811 ATCZ (1)	OPEN-SV OPEN-FV TENV	W/O ACC.								
			TACH.								
			BRAKE			x	x	x	x		
			BRK. & TACH.			x	x	x	x		
	C1812 ATCZ (1)	OPEN-SV OPEN-FV TENV	W/O ACC.								
			TACH.			x	x	x	x		
			BRAKE			x	x	x	x		
			BRK. & TACH.			x	x	x	x		
C2113AT	SC2113 ATCZ (2)	OPEN-SV OPEN-FV TENV	W/O ACC.			x	x	x	x		
			TACH.			x	x	x	x		
			BRAKE			x	x	x	x		
			BRK. & TACH.			x	x	x	x		
	MC2113 ATCZ (2)	OPEN-SV OPEN-FV TENV	W/O ACC.			x	x	x	x		
			TACH.			x	x	x	x		
			BRAKE			x	x	x	x		
			BRK. & TACH.			x	x	x	x		
	LC2113 ATCZ (2)	OPEN-SV OPEN-FV TENV	W/O ACC.			x	x	x	x		
			TACH.			x	x	x	x		
			BRAKE			x	x	x	x	x	x
			BRK. & TACH.			x	x	x	x	x	x
C2512AT	SC2512 ATCZ (3)	OPEN-SV OPEN-FV TENV	W/O ACC.								
			TACH.							x	x
			BRAKE							x	x
			BRK. & TACH.							x	x
	MC2512 ATCZ (3)	OPEN-SV OPEN-FV TENV	W/O ACC.								
			TACH.							x	x
			BRAKE							x	x
			BRK. & TACH.							x	x
	LC2512 ATCZ (3)	OPEN-SV OPEN-FV TENV	W/O ACC.							x	x
			TACH.							x	x
			BRAKE							x	x
			BRK. & TACH.							x	x

- 1) WITH SHAFT SAME AS 180TC  
 2) WITH SHAFT SAME AS 210TC  
 3) WITH SHAFT SAME AS 250TC

- — NOT ACCEPTABLE  
 ■ — ACCEPTABLE COMBINATIONS  
 ☒ — MOTOR MUST BE FOOT SUPPORTED  
 AND CAREFULLY ALIGNED

ACC — ACCESSORIES  
 OPEN-SV — OPEN SELF VENTILATED  
 OPEN-FV — OPEN FORCE VENTILATED  
 TENV — TOTALLY ENCLOSED NON-VENTILATED  
 TACH — MOTOR MOUNTED TACHOMETER  
 BRK. TACH — BRAKE AND TACHOMETER



# Installation, Lubrication and Maintenance

Sizes CM12 thru CM40  
WM12 thru WM40  
H419

## INSTALLATION

Proper installation of MASTER speed reducers will ensure reliable service and maximum life. Key items to minimize possible failures include:

**Gear Case Mounting**—To insure uniform pressure mount gear case on flat surface. Use uniform torque when mounting bolts are tightened.

**Shaft Overhung Loads**—Excessive overhung loads due to over tightening of belts or chains can result in broken shafts and reduced bearing life or failure.

**Couplings**—Improper coupling alignment can result in excessive stresses on gear unit shaft and bearings.

**Shock Loads**—Excessive shock loads can also result in damaging stresses on shafting and bearings.

## LUBRICATION

Proper lubrication of MASTER speed reducers is extremely important if long trouble-free operation is to be expected. Proper lubrication consists of:

1. Use of proper type and grade of lubricant.
2. Maintenance of correct oil level.
3. Drain, flush, and refill at the required intervals.

MASTER speed reducers are filled at the factory with the proper oil to the correct level for the specified mounting position. It is impossible to select one gear lubricant of petroleum origin which is usable over a wide range of temperatures. MASTER reducers are filled with lubricant meeting AGMA 7EP standards as outlined in table below. Use lubricants of the proper group and AGMA number as required by the ambient temperature in which the reducer will operate.

The correct amount of oil is important to the performance of a speed reducer. Each MASTER speed reducer has a red oil level plug which indicates the proper oil level for a given mounting position. All standard mounting positions can be mounted up to  $\pm 5^\circ$  from either vertical or horizontal axis without changing oil vent, level and drain plugs. If mounting angle exceeds  $\pm 5^\circ$ , specify when ordering.

Changes in the mounting position will require relocation

### Recommended Lubricants for Continuous Duty Under Load

Ambient Temperature	Reliance Group	AGMA Number
-65°F to 0°F*	318.59	Consult Factory
-45°F to +20°F*	318.60	Consult Factory
-5°F to +55°F*	318.61	5EP
+15°F to +110°F	318.62	7EP
+100°F to 165°F**	318.63	8EP

of the level plug and adding or drawing lubricant to insure proper amount. Check the oil level plug location diagrams on instruction tags shipped with each reducer.

## Recommended Lubricant Suppliers—

The following lubricants are recommended for units operating in the +15°F to +110°F ambient temperature range.

Supplier	Product (weight)
Amoco Oil Co.	AMOCO Permgear EP (460)
Amoco Oil Co.	Worm Gear Oil
Atlantic Richfield Co.	Arco Mineral Gear Oil—SAE (140)
Carr Oil Co.	Lube 733EP (140)
Darmex Corp.	Gear Box Oil (DX-9140)
Dubois Chemical Co.	E.G.O. EP (140)
Fiske Brothers	Lubriplate APG (140)
Gulf Oil Co.	Transgear Lube (460)
E. F. Houghton Co.	MP Gear Oil (140)
Keystone Lubrication Co.	WG-A
Mobil Oil Co.	Cylinder Oil (600W)
Phillips Petroleum Co.	Philube (140)
Shell Oil Co.	Spirax Heavy Duty (85W-140)
Ultra Chem	Chemilube (140)

Gear case is shipped with a solid plug in the vent hole. This plug must be removed and vented plug which is furnished must be inserted before unit is operated. This vent plug is designed to prevent dirt and water from entering the gearcase and also releases the air pressure caused by heat generated in the gearcase. Without proper air venting the increase in air pressure may force lubricant through the oil seals and result in oil leakage and/or damage to the oil seal. Do not restrict the operation of this vent with paint or other obstructions.

## MAINTENANCE

Periodic changing of lubricant is important for maximum reducer performance. Lubricant should be drained and refilled after the first 250 hours of operation; then every 1500 hours or six months thereafter, whichever occurs first.\*\*

In addition to lubrication and installation, regular inspection to ensure tightness of bolts and screws, correct alignment of shaft and couplings, no major oil leaks, no excessive heating and no unusual vibration or noises will guarantee maximum performance and life of your MASTER reducer.

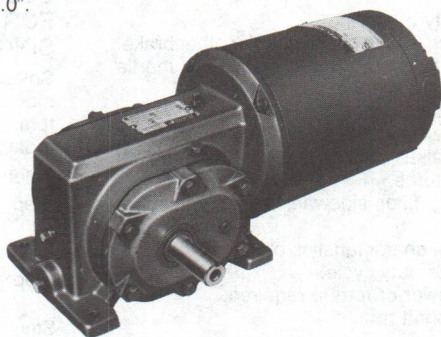
\*For temperatures below +10°F special oil seals are required.

\*\*All group 63 lubes must be changed after 300 hrs. of high temperature operation.

References	Ratings p. G2-8—G2-13	Selection p. G2-6 & G2-7	Std. Features p. G2-2—G2-4	Mtr. Dim. p. G2-44 & G2-45	Modifications p. G2-75—G2-83
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# MASTER XL Right-Angle Gearmotors

MASTER XL Right-Angle Gearmotors represent our most compact and economical construction. Gearmotors are available in integral cast foot construction as shown, also in multimount (bolt-on-foot), flanged output, and J-mount. Center distances are available from 1.5" to 5.0".



## MASTER XL GERMOTORS

In addition to HP and output speed

Right angle gearmotors are identified as follows:

### NOMENCLATURE

#### MOTOR FRAME

FC56

#### TYPE OF GEAR TRAIN

W — Right angle single reduction worm

C — Right angle combination worm and helical

#### TYPE OF GEAR UNIT

G — Gearmotor

M — C-Face Construction

W

G

12

A

#### GEAR UNIT SIZE

12—1.5" center distance

28—3.5" center distance

16—2.0" center distance

40—5.0" center distance

21—2.62" center distance

#### GEAR UNIT MOUNTING

A—Integrally Cast Foot

B—Multimount (Bolt-on-foot)

F—Footless flanged gearcase

J—J-Mount



# Selection Information

## SELECTION FACTORS

To apply a Gearmotor properly, the following facts must be considered:

1. The kind of load, reversing, amount of shock, duty cycle, etc.
2. Type of transmission: direct connected, sprocket and chain, pinion and gear, V-belt, or flat belt.
3. The point of application of the load if overhung.
4. Possibility of stalling.
5. Retarding torque of Unibrake or other brake.
6. Size of flywheel if used or  $WK^2$  or inertia effect of the load.
7. Surrounding conditions, normal, dusty, outdoor, hazardous vapor or dust, moisture, or acid or alkali fumes, or abnormal ambient temperatures.
8. Mounting: floor, sidewall, ceiling, vertical or inclined.
9. Electrical characteristics of the motor.
10. Complete duty cycle.
11. Horsepower or torque required.
12. Output shaft rpm.

## HOW TO SELECT

**Single Reduction and Combination Gearmotors**—The selection tables have been grouped by input capacities. To make your selection easier, single reduction and combination reduction gearmotors have been listed together in one continuous progression of available output speeds and torques for each horsepower category. For most applications, the type of unit listed (single reduction, or combination) will be the most economical unit for that particular output speed and torque capacity.

**Gear Service Factor**—All units listed in the selection tables are suitable for Class 1.0 service factor applications. See table below for explanation of service factors.

**Gear Unit Mounting**—A wide variety of mounting positions is available in the MASTER XL Gearmotor line to meet all application requirements. Integrally cast feet, Multimount (bolt-on-foot) and flange mountings, are shown in the mounting position diagrams. Proper selection of the mounting position is important to assure correct oil level in the gear case for the specific application. Refer to page G2-63 for mounting position diagrams.

## HOW TO ORDER

Specify:

- |                      |                        |
|----------------------|------------------------|
| 1. Horsepower        | 6. Voltage—Hz          |
| 2. Frame Size        | 7. Single or Polyphase |
| 3. Output rpm        | 8. Duty Cycle          |
| 4. Enclosure         | 9. Service Factor      |
| 5. Mounting Position |                        |

## SELECTION EXAMPLE FOR RIGHT ANGLE SINGLE REDUCTION

Select a MASTER XL Gearmotor to drive a machine which requires .50 hp output at 175 rpm. The gearmotor will operate for 10 hours a day, subject to uniform loads.

Solution:

- |          |  |
|----------|--|
| Step 1.  | Service factor from the table on page G2-53 is 1.0.  |
| Step 2.  | Design hp is $\frac{1}{2}$ hp gearmotors.  |
| Step 3.  | Refer to page G2-55 for $\frac{1}{2}$ hp gearmotors.   |
| Step 4.  | Locate desired 175 output rpm from left hand column.   |
| Step 5.  | Output hp in third column is .39.  |
| Step 6.  | Refer to next larger hp on page G2-53 for $\frac{3}{4}$ hp gearmotors.   |
| Step 7.  | Locate desired 175 output rpm from left hand column. Output hp is .61.   |
| Step 8.  | Check torque and overhung load capacity of unit selected. See G2-53.   |
| Step 9.  | Select desired motor enclosure, electrical specifications, and mounting position. (e.g.: Polyphase, 230/460 TENV). |
| Step 10. | Unit required is FC56WG12A.  |

## Service Factors

Prime Mover	Duration of Service Per Day	Driven Machine Load Classification		
		Uniform	Medium Shock	Heavy Shock
Electric Motor	Occasional 1/2 hr.	0.80	0.90	1.00
	Intermittent 2 hrs.	0.90	1.00	1.25
	10 hours	1.00	1.25	1.50
	24 hours	1.25	1.50	1.75
Electric Motor With Frequent Starts and Stops	Occasional 1/2 hr.	0.90	1.00	1.25
	Intermittent 2 hrs.	1.00	1.25	1.50
	10 hours	1.25	1.50	1.75
	24 hours	1.50	1.75	2.00
Multi-cylinder Internal Combustion Engine	Occasional 1/2 hr.	0.90	1.00	1.25
	Intermittent 2 hrs.	1.00	1.25	1.50
	10 hours	1.25	1.50	1.75
	24 hours	1.50	1.75	2.00
Single Cylinder Internal Combustion Engine	Occasional 1/2 hr.	1.00	1.25	1.50
	Intermittent 2 hrs.	1.25	1.50	1.75
	10 hours	1.50	1.75	2.00
	24 hours	1.75	2.00	2.25

## Overhung Load

To determine overhung load, divide the torque required by the pitch radius of the sprocket, sheave, etc. and multiply by the appropriate factor as follows:

Chain Drive	1.00
Synchronous Belt Drive	1.10
Spur or Helical Gear	1.25
V-Belt	1.50
Flat Belt	2.50

The calculated overhung load must not exceed the capability shown in the selection charts.

For loads acting at more than one shaft diameter from bearing housing, use following conversion factors:

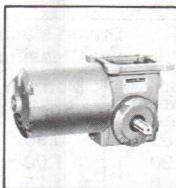
Distance in Shaft Diameters from Brg. Hsg.	Multiply OHL Capacity By This Factor
1 D	1.0
2 D	.65
3 D	.45
4 D	.35
5 D	.30



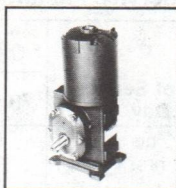
# Selection—1/3 HP



CAST FEET  
(A Suffix)



MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

DISCOUNT—D-461

RATED OUTPUT					FRAMES AND LIST PRICES				ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound- Inch	Over- Hung Load Lb.	Single-Phase 115/230 Volts— 60 Hz		Polyphase 230/460 Volts 60 Hz		Flange Mount	Multi- Mount	Standard Duty Brakes (5)	J-Mount
					Enclosed 40° Amb.		Enclosed 40° Amb.					
					TENV	Explosion- Proof (2) (3)	TENV (4)	Explosion- Proof (2) (3)				
SINGLE REDUCTION—1725 rpm INPUT SPEED												
350	5.0	.25	45	540	FC56WG12A \$519	GE56WM12A \$756	FB56WG12A \$517	GA56WM12A \$802	\$ 59	\$ 59	3 ft-lb \$324	\$ 81
233	7.5	.24	66	525								
175	10.0	.24	86	510								
138	12.7	.24	113	490								
117	15.0	.24	127	480								
97	18.0	.24	152	467								
87	20.0	.22	159	457								
70	25.0	.23	209	422								
58	30.0	.20	219	415								
44	40.0	.19	280	982	FC56WG16A \$614	GE56WM16A \$851	FB56WG16A \$612	GA56WM16A \$897	\$ 70	\$ 65	3 ft-lb \$324	\$ 84
35	50.0	.19	343	980								
29	60.0	.18	396	977								
COMBINATION—1725 rpm INPUT SPEED												
25	70.0	.23	603	1155	FC56CG12A \$816	GE56CM12A \$1053	FB56CG12A \$814	GA56CM12A \$1099	\$ 54	\$ 47	3 ft-lb \$324	\$ 76
20	86.0	.23	724	1150								
17	101.0	.23	832	1140								
14	121.0	.20	874	1140								
12	144.0	.20	1030	1120								
11	162.0	.20	1147	1770	FC56CG16A \$1026	GE56CM16A \$1263	FB56CG16A \$1024	GA56CM16A \$1309	\$118	\$103	3 ft-lb \$324	\$144
9	192.0	.20	1359	1760								
7	240.0	.19	1608	1735								
6	288.0	.18	1859	1700								

(1) Actual speeds may vary  $\pm 5\%$ .

(2) Class I, Group D; Class II, Groups F and G, 230/460V only.

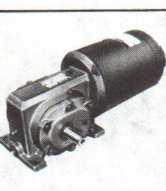
(3) TENV.

(4) Suitable for 208V—See Stock Book for 575V availability.

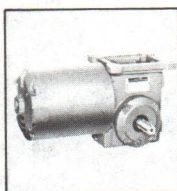
(5) Price applies only to 230/460V, 60 Hz, standard enclosure.

References	Dim. G2-64 thru G2-71 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst. Maint. G2-50
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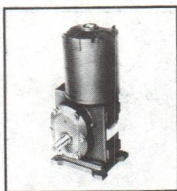
# Selection—1/2 HP



CAST FEET  
(A Suffix)



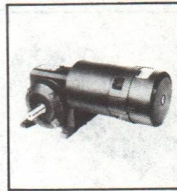
MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

DISCOUNT—D-46b

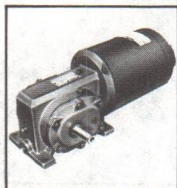
RATED OUTPUT					FRAMES AND LIST PRICES				ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound-Inch	Over- Hung Load Lb.	Single-Phase 115/230 Volts— 60 Hz		Polyphase 230/460 Volts 60 Hz		Flange Mount	Multi- Mount	Standard Duty Brakes (5)	J-Mount
					Enclosed 40° Amb.		Enclosed 40° Amb.					
					Fan- Cooled	Explosion- Proof (2)	Fan- Cooled (4)	Explosion- Proof (2) (3)				
SINGLE REDUCTION—1725 rpm INPUT SPEED												
350	5.0	.41	73	520	FC56WG12A \$550	L56WM12A \$786	FC56WG12A \$526	L56WM12A \$826	\$ 59	\$ 59	3 ft-lb \$324	\$ 81
233	7.5	.40	107	495								
175	10.0	.39	139	472								
138	12.7	.39	181	442								
117	15.0	.38	204	425								
97	18.0	.38	245	395	FC56WG16A \$645	L56WM16A \$881	FC56WG16A \$621	L56WM16A \$921	\$ 70	\$ 65	3 ft-lb \$324	\$ 84
87	20.0	.36	262	390								
70	25.0	.36	327	980								
58	30.0	.34	368	978								
44	40.0	.32	457	968								
35	50.0	.30	542	960	FC56WG21A \$896	L56WM21A \$1031	FC56WG21A \$771	L56WM21A \$1071	\$107	\$100	3 ft-lb \$324	\$115
29	60.0	.30	653	1315								
COMBINATION—1725 rpm INPUT SPEED												
25	70.0	.37	969	1130	FC56CG12A \$847	L56CM12A \$1083	FC56CG12A \$823	K56CM12A \$1123	\$ 54	\$ 47	3 ft-lb \$324	\$ 76
20	86.0	.37	1135	1770	FC56CG16A \$1057	L56CM16A \$1293	FC56CG16A \$1033	K56CM16A \$1333				
17	101.0	.37	1356	1760								
14	121.0	.33	1454	1750								
12	144.0	.33	1713	1740								
11	162.0	.31	1819	1710	FC56CG21A \$1180	L56CM21A \$1728	FC56CG21A \$1468	K56CM21A \$1768	\$118	\$103	3 ft-lb \$324	\$144
9	192.0	.31	2154	1660								
7	240.0	.30	2683	1320								
COMBINATION—1160 rpm INPUT SPEED												
8	144.0	.32	2505	1580	FC56CG16A \$1180	N/A	FC56CG16A \$1112 (6)	N/A	\$118	\$103	Contact Reliance	\$144
7	162.0	.30	2682	1320								
COMBINATION—1725 rpm INPUT SPEED												
6	288.0	.30	3062	2880	FC56CG21A \$1492	L56CM21A \$1728	FC56CG21A \$1468	K56CM21A \$1768	\$121	\$103	3 ft-lb \$324	\$144
COMBINATION—1160 rpm INPUT SPEED												
5	240.0	.29	3752	2840	FC56CG21A \$1615	N/A	FC56CG21A \$1547 (6)	N/A	\$121	\$103	Contact Reliance	\$144
4	288.0	.29	4475	2770								

- (1) Actual speeds may vary  $\pm 5\%$ .  
 (2) Class I, Group D; Class II, Groups F and G, 230/460V only.  
 (3) TENV.  
 (4) Suitable for 208V—See Stock Book for 575V availability.  
 (5) Price applies only to 230/460V, 60 Hz, standard enclosure.  
 (6) 230/460V only.

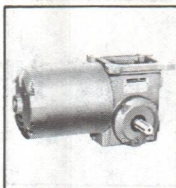
References	Dim. G2-64 thru G2-73 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst./Maint. G2-50
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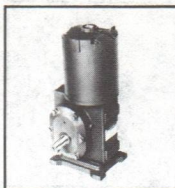
# Selection—3/4 HP



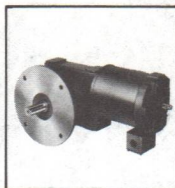
CAST FEET  
(A Suffix)



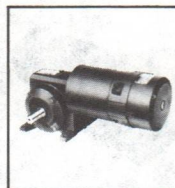
MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

DISCOUNT—D-46b

RATED OUTPUT					FRAMES AND LIST PRICES				ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound-Inch	Over- Hung Load Lb.	Single-Phase 115/230 Volts— 60 Hz		Polyphase 230/460 Volts 60 Hz		Flange Mount	Multi- Mount	Standard Duty Brakes (4)	J-Mount
					Enclosed 40° Amb.		Enclosed 40° Amb.					
					Fan- Cooled	Explosion- Proof (2)	Fan- Cooled (3)	Explosion- Proof (2)				
SINGLE REDUCTION—1725 rpm INPUT SPEED												
350	5.0	.64	114	490	FC56WG12A	M56WM12A	FC56WG12A	K56WM12A	\$ 59	\$ 59	3ft-lb \$324	\$ 81
233	7.5	.62	168	450	\$587	\$832	\$558	\$855				
175	10.0	.61	219	430								
138	12.7	.61	278	920	FC56WG16A	M56WM16A	FC56WG16A	K56WM16A	\$ 70	\$ 65		\$ 84
117	15.0	.60	325	960								
97	18.0	.58	377	980								
87	20.0	.57	408	975								
70	25.0	.56	505	965	FB56WG21A	M56WM21A	FC56WG21A	K56WM21A	\$ 107	\$ 100	\$ 115	
58	30.0	.53	567	960								
44	40.0	.51	736	1310								
35	50.0	.49	875	1300								
29	60.0	.47	1004	1290	\$946	\$1077	\$803	\$1100				
COMBINATION—1725 rpm INPUT SPEED												
25	70.0	.59	1525	1740	FC56CG16A	M56CM16A	FC56CG16A	K56CM16A	\$ 118	\$ 103	3 ft-lb \$324	\$ 144
20	86.0	.57	1766	1720								
17	101.0	.57	2100	1680								
14	121.0	.55	2395	2890								
12	144.0	.55	2821	2880	FB56CG21A	M56CM21A	FC56CG21A	K56CM21A	\$ 121	\$ 103	\$ 144	
11	162.0	.50	2931	2880								
9	192.0	.50	3453	2860								
7	240.0	.48	4104	2810								
6	288.0	.46	4753	2690	\$1529	\$1774	\$1500	\$1797				

(1) Actual speeds may vary  $\pm 5\%$ .

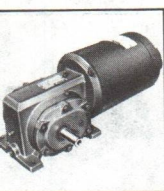
(2) Class I, Group D; Class II, Groups F and G, 230/460V only.

(3) Suitable for 208V—See Stock Book for 575V availability.

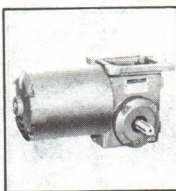
(4) Price applies only to 230/460V, 60 Hz, standard enclosure.

References	Dim. G2-64 thru G2-71 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst./Maint. G2-50
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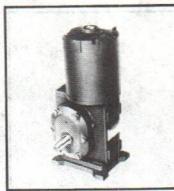
G2-56



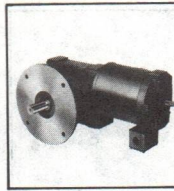
CAST FEET  
(A Suffix)



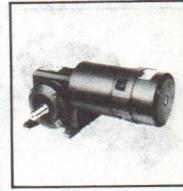
MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

DISCOUNT—D-46b

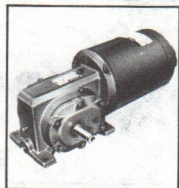
RATED OUTPUT					FRAMES AND LIST PRICES				ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound-Inch	Over- Hung Load Lb.	Single-Phase 115/230 Volts— 60 Hz		Polyphase 230/460 Volts 60 Hz		Flange Mount	Multi- Mount	Standard Duty Brakes (5)	J-Mount
					Enclosed 40° Amb.		Enclosed 40° Amb.					
					Fan- Cooled	Explosion- Proof (2)	Fan- Cooled (4)	Explosion- Proof (2)				
SINGLE REDUCTION—1725 rpm INPUT SPEED												
350 233	5.0 7.5	.87 .86	156 231	460 465	FD56WG12A \$615	P56WM12A \$858	FC56WG12A \$570	K56WM12A \$867	\$ 59	\$ 59	3ft-lb \$324	\$ 81
175 138 117 97 87	10.0 12.7 15.0 18.0 20.0	.84 .83 .82 .79 .77	301 378 441 511 554	810 885 920 960 960	FD56WG16A \$710	P56WM16A \$953	FC56WG16A \$665	K56WM16A \$962	\$ 70	\$ 65		\$ 84
70 58 44	25.0 30.0 40.0	.79 .75 .69	710 811 995	1310 1307 1292	FD56WG21A \$860	P56WM21A \$1103	FC56WG21A \$815	K56WM21A \$1112	\$107	\$100		\$115
COMBINATION—1725 rpm INPUT SPEED												
35 29 25 20	50.0 60.0 70.0 86.0	.81 .81 .80 .77	1501 1768 2069 2396	1740 1720 1680 1610	FD56CG16A \$1122	P56CM16A \$1365	FC56CG16A \$1077	K56CM16A \$1374	\$118	\$103	3 ft-lb \$324	\$144
17 14 12 11 9	101.0 121.0 144.0 162.0 192.0	.77 .74 .74 .68 .68	2825 3244 3821 3963 4668	2880 2870 2840 2820 2740	FD56CG21A \$1557	P56CM21A \$1800	FC56CG21A \$1512	K56CM21A \$1809	\$121	\$103		\$144
7	240.0	.65	5555	5900	FD56CG28A \$2850	P56CM28A \$3093	FC56CG28A \$2805	K56CM28A \$3102	\$184	N/A		\$144(3)

- (1) Actual speeds may vary  $\pm 5\%$ .  
 (2) Class I, Group D; Class II, Groups F and G, 230/460V only.  
 (3) J-Mount maximum overhung load 3325 lbs.  
 (4) Suitable for 208V—See Stock Book for 575V availability.  
 (5) Price applies to 230/46V, 60 Hz, standard enclosure.

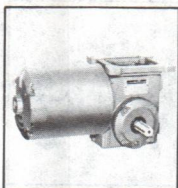
References	Dim. G2-64 thru G2-71 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst./Maint. G2-50
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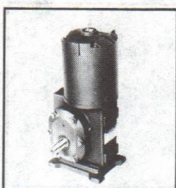
# Selection—1½ HP



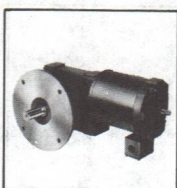
CAST FEET  
(A Suffix)



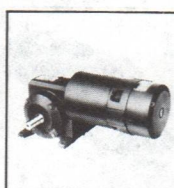
MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

## DISCOUNT—D-46b

RATED OUTPUT					FRAMES AND LIST PRICES		ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound- Inch	Over- Hung Load Lb.	CLASS B INSULATION— 40° AMBIENT		Flange Mount	Multi Mount	Standard Duty Brakes (5)	J-Mount
					Polyphase 230/460 Volts					
					Fan- Cooled (4)	Explosion- Proof (2)				
SINGLE REDUCTION—1725 rpm INPUT SPEED										
350	5.0	1.34	241	660	FC145WG16A <b>\$688</b>	145WM16A <b>\$991</b>	<b>\$ 70</b>	<b>\$ 65</b>	6 ft-lb- <b>\$391</b>	<b>\$ 84</b>
233	7.5	1.31	354	720						
175	10.0	1.28	461	760						
138	12.7	1.26	577	820						
117	15.0	1.26	681	1315	FC145WG21A <b>\$838</b>	145WM21A <b>\$1141</b>	<b>\$107</b>	<b>\$100</b>		<b>\$115</b>
97	18.0	1.26	818	1308						
87	20.0	1.25	898	1300						
70	25.0	1.20	1083	1290						
COMBINATION—1725 rpm INPUT SPEED										
58	30.0	1.28	1409	1750	FC145CG16A <b>\$1100</b>	145CM16A <b>\$1403</b>	<b>\$118</b>	<b>\$103</b>	6 ft-lb <b>\$391</b>	<b>\$144</b>
48	36.0	1.28	1659	1730						
44	40.0	1.26	1837	1710						
35	50.0	1.24	2290	1640						
29	60.0	1.27	2772	2880	FC145CG21A <b>\$1535</b>	145CM21A <b>\$1838</b>	<b>\$121</b>	<b>\$103</b>		<b>\$144</b>
25	70.0	1.24	3195	2870						
20	86.0	1.24	3834	2820						
17	101.0	1.18	4312	2780						
14	121.0	1.13	4895	5910	FC145CG28A <b>\$2828</b>	145CM28A <b>\$3131</b>	<b>\$184</b>	N/A		<b>\$144(3)</b>
12	144.0	1.13	5836	5900						
11	162.0	1.03	5932	5880						
9	192.0	1.03	7072	5830						
7	240.0	1.00	8542	5770						
COMBINATION—1160 rpm INPUT SPEED										
6	192.0	1.00	10453	5670	182CG28A <b>\$3158</b>	182CM28A <b>\$3788</b>	<b>\$184</b>	N/A	10 ft-lb <b>\$586</b>	<b>\$144(3)</b>
5	240.0	.95	12345	5500	<b>\$3158</b>	<b>\$3788</b>				

(1) Actual speeds may vary  $\pm 5\%$ .

(2) Class I, Group D; Class II, Groups F and G, 230/460V only.

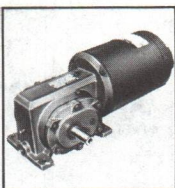
(3) J-Mount, maximum overhung load 3325 lbs.

(4) Suitable for 208V—See Stock Book for 575V availability.

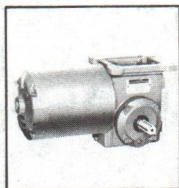
(5) Price applies only to 230/460V, 60 Hz, standard enclosure.

References	Dim. G2-64 thru G2-71 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst./Maint. G2-50
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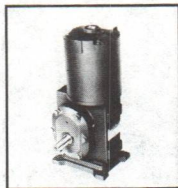
# Selection—2 HP



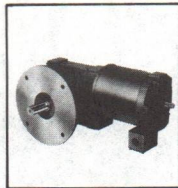
CAST FEET  
(A Suffix)



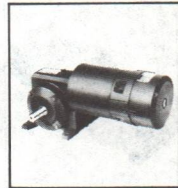
MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

## DISCOUNT—D-46b

RATED OUTPUT					FRAMES AND LIST PRICES		ADDITIONS							
rpm (1)	Nominal Ratio	HP	Torque Pound- Inch	Over- Hung Load Lb.	CLASS B INSULATION— 40° AMBIENT		Flange Mount	Multi- Mount	Standard Duty Brakes (5)	J-Mount				
					Polyphase 230/460 Volts									
					Fan- Cooled (4)	Explosion- Proof (2)								
SINGLE REDUCTION—1725 rpm INPUT SPEED														
350 233	5.0 7.5	1.80 1.78	325 479	632 635	FD145WG16A <b>\$712</b>	145WM16A <b>\$1021</b>	<b>\$ 70</b>	<b>\$ 65</b>	6 ft-lb <b>\$391</b>	<b>\$ 84</b>  <b>\$115</b>				
175	10.0	1.75	629	1130	FD145WG21A <b>\$862</b>	145WM21A <b>\$1171</b>	<b>\$107</b>	<b>\$100</b>						
138	12.7	1.75	798	1190										
117 97	15.0 18.0	1.70 1.70	916 1099	1270 1285										
COMBINATION—1725 rpm INPUT SPEED														
87 58 48	20.0 25.0 30.0 36.0	1.77 1.77 1.74 1.70	1293 1523 1909 2201	1760 1740 1750 1640	FD145CG16A <b>\$1124</b>	145CM16A <b>\$1433</b>	<b>\$118</b>	<b>\$103</b>	6 ft-lb <b>\$391</b>	<b>\$144</b>  <b>\$144</b>				
44 35 29 25 20	40.0 50.0 60.0 70.0 86.0	1.71 1.71 1.71 1.66 1.66	2502 3170 3734 4296 5156	2900 2870 2840 2790 2670	FD145CG21A <b>\$1559</b>	145CM21A <b>\$1868</b>	<b>\$121</b>	<b>\$103</b>						
17 14 12 11 9	101.0 121.0 144.0 162.0 192.0	1.57 1.54 1.54 1.39 1.39	5660 6631 7905 8020 9563	5900 5850 5800 5800 5725							FD145CG28A <b>\$2852</b>	145CM28A <b>\$3161</b>	<b>\$184</b>	N/A
COMBINATION—1160 rpm INPUT SPEED														
8	144.0	1.51	11701	5600	184CG28A <b>\$3220</b>	184CM28A <b>\$3850</b>	<b>\$184</b>	N/A	10 ft-lb <b>\$586</b>	<b>\$144(3)</b>  <b>\$165(3)</b>				
5	240.0	1.28	16094	8720	184CG40A <b>\$6692</b>	184CM40A <b>\$7117</b>	<b>\$253</b>	N/A						

(1) Actual speeds may vary  $\pm 5\%$ .

(2) Class I, Group D; Class II, Groups F and G, 230/460V only.

(3) J-Mount, maximum overhung load 3325 lbs.

(4) Suitable for 208V—See Stock Book for 575V availability.

(5) Price applies only to 230/460V, 60 Hz standard enclosure.

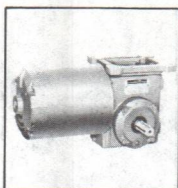
References	Dim. G2-64 thru G2-71 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst./Maint. G2-50
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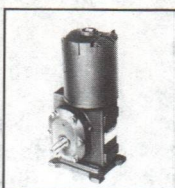
# Selection—3 HP



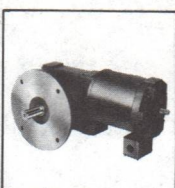
CAST FEET  
(A Suffix)



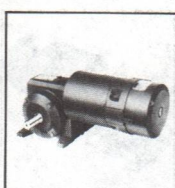
MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

## DISCOUNT—D-46b

DISCOUNT—D-46

RATED OUTPUT					FRAMES AND LIST PRICES		ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound- Inch	Over- Hung Load Lb.	CLASS B INSULATION— 40° AMBIENT		Flange Mount	Multi- Mount	Standard Duty Brakes (5)	J-Mount
					Polyphase 230/460 Volts					
					Fan- Cooled (4)	Explosion- Proof (2)				
<b>SINGLE REDUCTION—1725 rpm INPUT SPEED</b>										
350	5.0	2.75	496	918	182WG21A	182WM21A	\$107	\$100	10 ft-lb \$586	\$115
233	7.5	2.70	728	995	\$1015	\$1700				
175	10.0	2.65	953	1025						
138	12.7	2.63	1202	2055	182WG28A	182WM28A	\$181	\$152		\$115
117	15.0	2.55	1378	2160						
97	18.0	2.55	1654	2230						
87	20.0	2.47	1781	2240						
70	25.0	2.44	2200	2220						
<b>COMBINATION—1725 rpm INPUT SPEED</b>										
58	30.0	2.64	2898	2880	182CG21A	182CM21A	\$121	\$103	10 ft-lb \$586	\$144
48	36.0	2.64	3413	2860	\$1712	\$2397				
44	40.0	2.59	3792	2835						
35	50.0	2.58	4701	5925	182CG28A	182CM28A	\$184	N/A		\$144(3)
29	60.0	2.58	5605	5900						
25	70.0	2.58	6641	5850						
20	86.0	2.58	7968	5800						
17	101.0	2.40	8624	5760						
<b>COMBINATION—1140 rpm INPUT SPEED</b>										
13.5	86.0	2.48	11552	5600	213CG28A	213CM28A	\$184	N/A	15 ft-lb \$632	\$144(3)
					\$3436	\$3968				
<b>COMBINATION—1725 rpm INPUT SPEED</b>										
12	144.0	2.19	10963	8850	182CG40A	182CM40A	\$253	N/A	10 ft-lb \$586	\$165
11	162.0	2.11	12127	8850						
9	192.0	2.11	14022	8800						
7	240.0	2.03	16886	8700						
6	288.0	1.96	19567	8550						
<b>COMBINATION—1160 rpm INPUT SPEED</b>										
5	240.0	1.97	24700	8100	213CG40A	213CM40A	\$253	N/A	15 ft-lb \$632	\$165
4	288.0	1.84	27658	7700	\$6908	\$7235				

(1) Actual speeds may vary  $\pm 5\%$ .

(2) Class I, Group D; Class II, Groups F and G, 230/460V only.

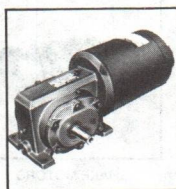
(3) J-Mount, maximum overhung load 3325 lbs.

(4) See Stock Book for 575V availability.

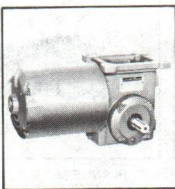
(5) Price applies only to 230/460V, 60 Hz standard enclosure.

References	Dim. G2-64 thru G2-71 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst./Maint. G2-50
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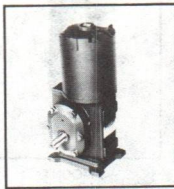
# Selection—5 HP



CAST FEET  
(A Suffix)



MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

## DISCOUNT—D-46b

RATED OUTPUT					FRAMES AND LIST PRICES			ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound- Inch	Over- Hung Load Lb.	CLASS B INSULATION— 40° AMBIENT		Flange Mount	Multi- Mount	Standard Duty Brakes (5)	J-Mount	
					Polyphase 230/460 Volts						
					Fan- Cooled (4)	Explosion- Proof (2)					
SINGLE REDUCTION—1725 rpm INPUT SPEED											
350 233 175 138	5.0 7.5 10.0 12.7	4.58 4.54 4.50 4.28	824 1225 1620 1955	1530 1685 1790 1800	184WG28A \$1507	184WM28A \$2349	\$181	\$152	\$632	\$115	
COMBINATION—1725 rpm INPUT SPEED											
117 97	15.0 18.0	4.24 4.15	2289 2691	3830 3820	184CG28A \$3058	184CM28A \$3870	\$379	N/A	15 ft-lb \$632	\$115	
87 70	20.0 25.0	4.54 4.54	3321 3912	2860 2820	184CG21A \$1765	184CM21A \$2577	\$121	\$103		\$115	
58 48 44 35 29	30.0 36.0 40.0 50.0 60.0	4.45 4.45 4.39 4.36 4.36	4803 5727 6314 7955 9484	5910 5880 5860 5800 5720	184CG28A \$3058	184CM28A \$3870	\$184	N/A		\$144(3)	
25 20	70.0 86.0	4.15 4.07	10469 12163	5800 8840	184CG40A \$6530	184CM40A \$7137	\$253	N/A		\$165	
17 14 12 11	101.0 121.0 144.0 162.0	3.96 3.78 3.78 3.62	14387 16323 18908 20820	8760 8700 8550 8400							
9	192.0	3.62	24073	8200							
COMBINATION—1160 rpm INPUT SPEED											
8	144.0	3.62	27344	7800	215CG40A \$7293	215CM40A \$7620	\$253	N/A	25 ft-lb \$1798	\$165	

(1) Actual speeds may vary  $\pm 5\%$ .

(2) Class I, Group D; Class II, Groups F and G, 230/460V only.

(3) J-Mount, maximum overhung load 3325 lbs.

(4) See Stock Book for 575V availability.

(5) Price applies only to 230/460V, 60 Hz standard enclosure.

References

Dim. G2-64 thru G2-71  
and G2-87

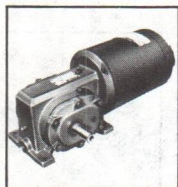
Modifications  
G2-75 thru G2-83

Mounting Pos.  
G2-63

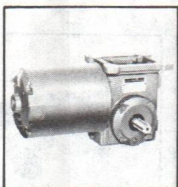
Inst./Maint.  
G2-50



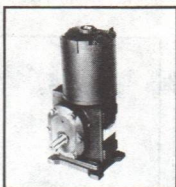
# Selection—7½ HP



CAST FEET  
(A Suffix)



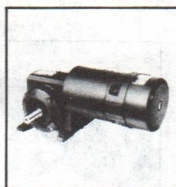
MULTI-MOUNT  
(B Suffix)



J-MOUNT  
(J Suffix)



FLANGE MOUNT  
(F Suffix)



BRAKE MOTORS

## DISCOUNT—D-46b

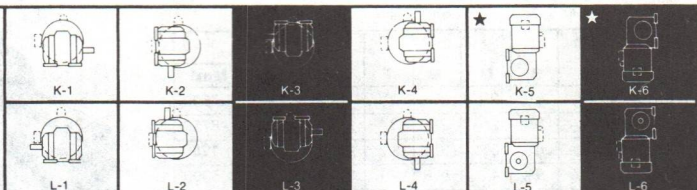
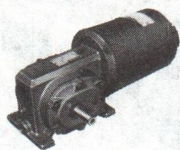
RATED OUTPUT					FRAMES AND LIST PRICES			ADDITIONS			
rpm (1)	Nominal Ratio	HP	Torque Pound- Inch	Over- Hung Load Lb.	CLASS B INSULATION— 40° AMBIENT		Flange Mount	Multi- Mount	Standard Duty Brakes (5)	J-Mount	
					Polyphase 230/460 Volts						
					Fan- Cooled (4)	Explosion- Proof (2)					
SINGLE REDUCTION—1725 rpm INPUT SPEED											
350 233	5.0 7.5	6.80 6.74	1224 1820	3100 3450	213WG40A \$3805	213WM40A \$4690	\$379	N/A	25 ft-lb \$1798	\$115	
COMBINATION—1725 rpm INPUT SPEED											
175 138 117 97 87 70 58 48	10.0 12.7 15.0 18.0 20.0 25.0 30.0 36.0	6.69 6.55 6.49 6.35 6.79 6.79 6.73 6.73	2407 2996 3504 4117 4888 5827 7264 8661	5400 5820 5800 5800 5920 5880 5820 5760	213CG28A \$3178	213CM28A \$4268	\$184	N/A	25 ft-lb \$1798	\$144(3)	
35 25 20 17	50.0 70.0 86.0 101.0	6.42 6.36 6.23 6.04	11789 16025 18605 21959	8850 8700 8590 8350							
					213CG40A \$6650	213CM40A \$7535	\$253	N/A		\$165	
COMBINATION —1160 rpm INPUT SPEED											
16 13.5	70.0 86.0	6.33 6.00	24055 27036	7900 7700	256CG40A \$7738	256CM40A \$8148	\$253	N/A	35 ft-lb \$1988	\$165	

- (1) Actual speeds may vary  $\pm 5\%$ .
- (2) Class I, Group D; Class II, Groups F and G, 230/460V only.
- (3) J-Mount, maximum overhung load 3325 lbs.
- (4) See Stock Book for 575V availability.
- (5) Price applies only to 230/460V, 60 Hz standard enclosure.

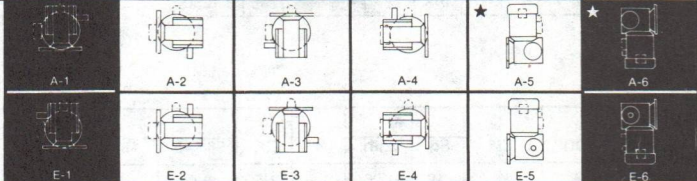
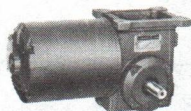
References	Dim. G2-64 thru G2-71 and G2-87	Modifications G2-75 thru G2-83	Mounting Pos. G2-63	Inst./Maint. G2-50
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# Mounting Positions

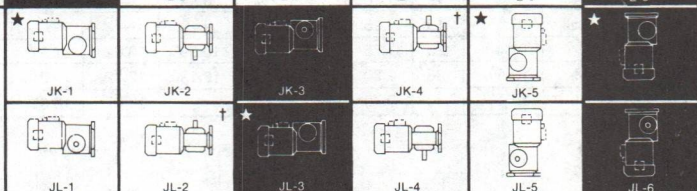
## INTEGRALLY CAST FOOT



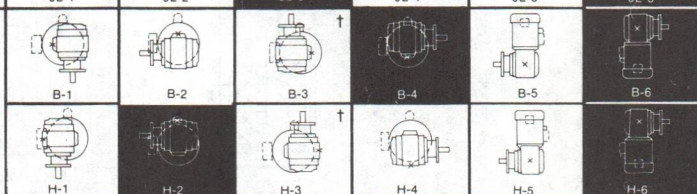
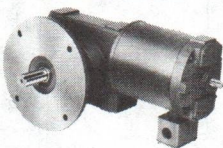
## MULTI-MOUNT



## J-MOUNT



## FLANGE MOUNT



## INCLINED MOUNTING

All of the mounting positions shown are suitable for mounting up to  $\pm 5^\circ$  from the vertical or horizontal axis, without changing oil vent, level and drain plugs. Be sure to specify when ordering, if angle of mounting is known to exceed  $\pm 5^\circ$ , such that the oil plugs can be repositioned for proper operation.

Shaded boxes indicate mounting positions not recommended. These should be avoided.

**NOTE: A FLOODED INPUT SHAFT SEAL SHOULD BE AVOIDED TO INSURE OPTIMUM SEAL LIFE. SHADED BOXES SHOWN ABOVE ARE THOSE MOUNTING POSITIONS WHICH RESULT IN A FLOODED INPUT SEAL.**

★ Countershaft is located on the concealed side of these units.

**Note:** Dotted Boxes show capacitor and/or conduit box locations when supplied as standard construction.

† Not available in CG40 case.

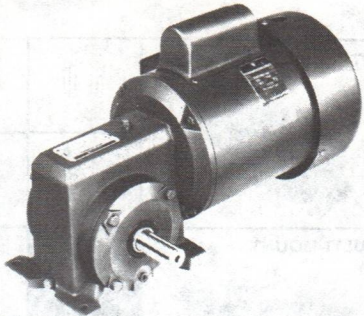
X Reference Surface



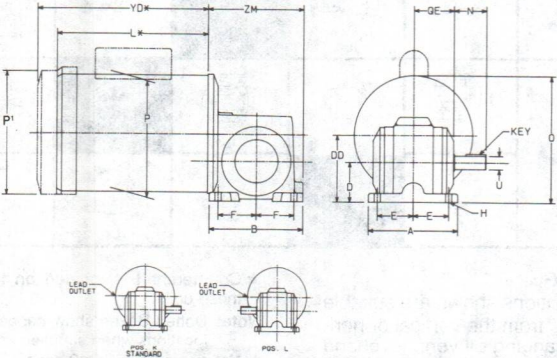
# Cast Foot Dimensions

## WG12A THRU WG40A

Gear-Case	A	B	D	E	F	N	U	
							Min.	Max.
WG12A	5	5 1/4	2 1/4	2	2 1/8	1 13/16	.7495	.7500
WG16A	5 1/2	6 7/8	2 1/2	2 1/4	3	2 1/16	.8745	.8750
WG21A	8	8	3 3/8	3 1/2	3 1/2	2 9/16	1.1245	1.1250
WG28A	9 1/2	9 3/4	4	4	4	3 3/8	1.4995	1.5000
WG40A	12 3/4	13 3/4	5 3/4	5 1/2	6	4 7/8	2.1245	2.1250



Gear-Case	DD	ZM	Key		H	QE	O			
			Sq.	Lgth.			56/140	180	210	250
WG12A	3 3/4	5 3/8	.19	1.25	1 1/32	2 1/4	8.44	—	—	—
WG16A	4 1/2	6 5/16	.19	1.25	1 3/32	2 1/2	9.19	—	—	—
WG21A	6	8 1/4	.25	1.75	1 3/32	3 7/16	10.69	10.62	11.31	—
WG28A	7 1/2	10 15/16	.38	2.50	1 7/32	4 1/2	12.19	12.12	12.81	14.00
WG40A	10 3/4	12 11/16	.50	3.75	2 29/32	5 3/4	—	15.37	16.06	17.25



Motor Frame			L	P	P1
OPEN	TENV	TEFC			
DB56	FB56	—	8 9/16	6 1/2	—
DC56	FC56	—	9 9/16	6 1/2	—
—	—	FC56	9 9/16	6 1/2	7 7/32
—	—	FD56	10 13/32	6 1/2	7 7/32
—	—	FC140T	9 9/16	6 1/2	7 7/32
—	—	FD140T	10 13/32	6 1/2	7 7/32

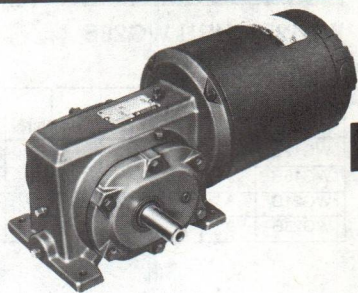
Motor Frame	L*		P	P1
	OPEN	TEFC		
182T	10 15/32	15.04	9 1/4	9.00
184T	11 15/32	15.04		
213T	13 3/32	17.54	10 5/8	10 1/2
215T	14 19/32	17.54		
254T	17 3/32	19 9/32	12 5/8	13
256T	18 25/32	21 1/32		

**Note:** Modified 180 Frames are longer than shown.  
56/140T does not apply to WG40A.  
180T/210T/250T does not apply to WG12A or WG16A.

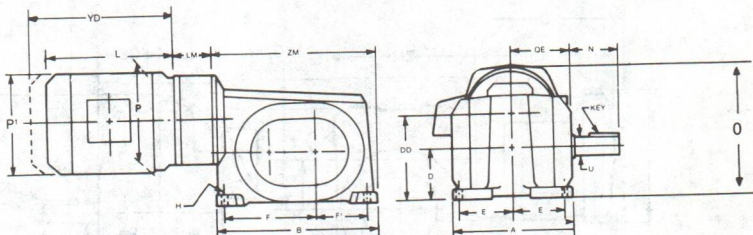
\* For WG40 only, add 8 15/32 to L and YD Dimensions.

# CG12A THRU CG40A

Gear-Case	A	B	D	E	F	F <sup>1</sup>	N	U	
								Min.	Max.
CG12A	6	8	2 1/2	2 1/2	4	3	2 1/16	.8745	.8750
CG16A	7 3/4	10	3	3 1/4	5 1/2	3 1/2	2 9/16	1.1245	1.1250
CG21A	9 1/4	12 1/4	4	4	7	4	3 3/8	1.4995	1.5000
CG28A	11 1/8	16 1/8	5 1/8	4 1/2	9 1/16	4 15/16	4 11/16	2.1245	2.1250
CG40A	15	20 7/8	6 1/2	6 1/4	11 7/8	6 5/8	5 7/8	2.624	2.625



Gear-Case	DD	ZM	Key		H	QD	LM	O			
			Sq.	Lgth.				56/140	180	210	250
CG12A	4	8 7/32	3/16	1 1/4	1 1/32	3 1/16	—	8.69	—	—	—
CG16A	5	10 1/8	1/4	1 3/4	1 3/32	3 9/16	—	9.69	—	—	—
CG21A	6 5/8	12 3/8	3/8	2 1/2	1 7/32	4 5/8	—	11.31	11.24	11.93	—
CG28A	8 5/8	16 15/16	1/2	3	2 1/32	5 7/8	—	13.31	13.24	13.93	15.12
CG40A	11 1/2	19 3/4	5/8	4	1 1/32	7 7/16	8 15/32	—	16.12	16.81	18.00



Motor Frame			L	P	P <sup>1</sup>
OPEN	TENV	TEFC			
DB56	FB56	—	8 9/16	6 1/2	—
DC56	FC56	—	9 9/16	6 1/2	—
—	—	FC56	9 9/16	6 1/2	7 7/32
—	—	FD56	10 19/32	6 1/2	7 7/32
—	—	FC140T	9 9/16	6 1/2	7 7/32
—	—	FD140T	10 19/32	6 1/2	7 7/32

Motor Frame	L	YD	P	P <sup>1</sup>
	OPEN	TEFC		
182T	10 15/32	15.04	9 1/4	9.00
184T	11 15/32	15.04		
213T	13 3/32	17.54	10 5/8	10 1/2
215T	14 19/32	17.54		
254T	17 3/32	19 9/32	12 5/8	13
256T	18 25/32	21 1/32		

Note: Modified 180 frames are longer than shown.

56/140T does not apply to CG40A.

180T/210T/250T does not apply to CG12A or CG16A.

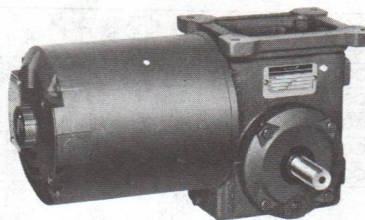
(1) LM Dimension applies to CG40 only.



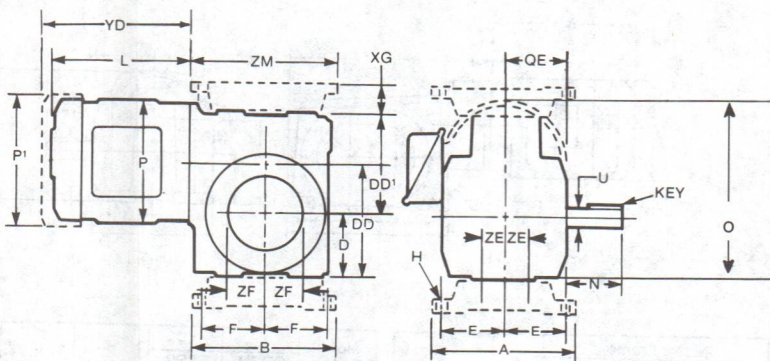
# Multimount Dimensions

## WG12B THRU WG28B

Gear-Case	A	B	D	E	F	N	U	
							Min.	Max.
WG12B	5	5 $\frac{1}{4}$	2 $\frac{3}{16}$	2	2 $\frac{1}{8}$	1 $\frac{13}{16}$	.7495	.7500
WG16B	5 $\frac{1}{2}$	6 $\frac{7}{8}$	2 $\frac{7}{16}$	2 $\frac{1}{4}$	3	2 $\frac{1}{16}$	.8745	.8750
WG21B	8	8	3 $\frac{5}{16}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	2 $\frac{9}{16}$	1.1245	1.1250
WG28B	9 $\frac{1}{4}$	9 $\frac{1}{4}$	4 $\frac{1}{16}$	4	4	3 $\frac{3}{8}$	1.4995	1.5000



Gear-Case	DD	DD'	XG	ZM	Key		H	QE	ZE	ZF	O			
					Sq.	Lgth.					56/140	180	210	250
WG12B	3 $\frac{11}{16}$	3 $\frac{15}{16}$	1 $\frac{1}{16}$	5 $\frac{3}{8}$	.19	1.25	1 $\frac{1}{32}$	2 $\frac{1}{4}$	.94	1.44	8.38	—	—	—
WG16B	4 $\frac{7}{16}$	4 $\frac{7}{16}$	1 $\frac{1}{16}$	6 $\frac{15}{16}$	.19	1.25	1 $\frac{1}{32}$	2 $\frac{1}{2}$	.94	1.75	9.13	—	—	—
WG21B	5 $\frac{5}{16}$	5 $\frac{5}{16}$	1 $\frac{5}{16}$	8 $\frac{1}{4}$	.25	1.75	1 $\frac{3}{32}$	3 $\frac{1}{16}$	1.12	2.00	10.63	10.56	11.25	—
WG28B	7 $\frac{1}{16}$	6 $\frac{3}{8}$	1 $\frac{15}{16}$	10 $\frac{7}{8}$	.38	2.50	1 $\frac{7}{32}$	4 $\frac{1}{2}$	1.12	3.25	12.25	12.18	12.87	14.06



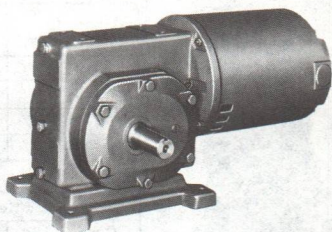
Motor Frame			L	P	P'
OPEN	TENV	TEFC			
DB56	FB56	—	8 $\frac{9}{16}$	6 $\frac{1}{2}$	—
DC56	FC56	—	9 $\frac{9}{16}$	6 $\frac{1}{2}$	—
—	—	FC56	9 $\frac{9}{16}$	6 $\frac{1}{2}$	7 $\frac{7}{32}$
—	—	FD56	10 $\frac{19}{32}$	6 $\frac{1}{2}$	7 $\frac{7}{32}$
—	—	FC140T	9 $\frac{9}{16}$	6 $\frac{1}{2}$	7 $\frac{7}{32}$
—	—	FD140T	10 $\frac{19}{32}$	6 $\frac{1}{2}$	7 $\frac{7}{32}$

Motor Frame	L	YD	P	P'
	OPEN	TEFC		
182T	10 $\frac{15}{32}$	15.04	9 $\frac{1}{4}$	9.00
184T	11 $\frac{15}{32}$	15.04		
213T	13 $\frac{3}{32}$	17.54	10 $\frac{5}{8}$	10 $\frac{1}{2}$
215T	14 $\frac{19}{32}$	17.54		
254T	17 $\frac{3}{32}$	19 $\frac{9}{32}$	12 $\frac{5}{8}$	13
256T	18 $\frac{25}{32}$	21 $\frac{1}{32}$		

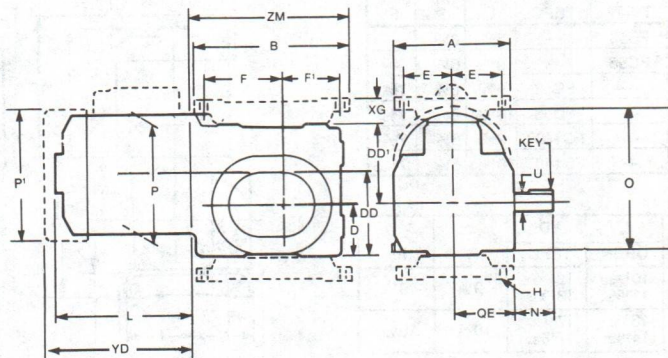
Note: Modified 180 frames are longer than shown.  
180T/210T/250T does not apply to WG12B or WG16B.

# G12B THRU CG21B

Gear-Case	A	B	D	E	F	F <sub>1</sub>	N	U	
								Min.	Max.
CG12B	6	8	2 <sup>7</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	4	3	2 <sup>1</sup> / <sub>16</sub>	.8745	.8754
CG16B	7 <sup>3</sup> / <sub>4</sub>	10	2 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>9</sup> / <sub>16</sub>	1.1245	1.1250
CG21B	9 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>16</sub>	4	7	4	3 <sup>3</sup> / <sub>8</sub>	1.4995	1.5000



Gear-Case	DD	DD <sup>1</sup>	XG	AM	KEY		H	QE	ZE	ZF	O		
					Sq.	Lgth.					56/140	180	210
CG12B	3 <sup>15</sup> / <sub>16</sub>	3 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	8.63	—	—
CG16B	4 <sup>15</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>32</sub>	3 <sup>9</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	9.63	—	—
CG21B	6 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>32</sub>	11.38	11.31	12.00



Motor Frame			L	P	P <sup>1</sup>
OPEN	TENV	TEFC			
DB56	FB56	—	8 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	—
DC56	FC56	—	9 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	—
—	—	FC56	9 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>32</sub>
—	—	FD56	10 <sup>1</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>32</sub>
—	—	FC140T	9 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>32</sub>
—	—	FD140T	10 <sup>1</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>32</sub>

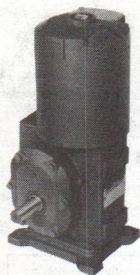
**Note:** Modified 180 Frames are longer than shown.  
180T/210T does not apply to CG12B or CG16B.

Motor Frame	L	YD	P	P <sup>1</sup>
	OPEN	TEFC		
182T	10 <sup>15</sup> / <sub>32</sub>	15.04	9 <sup>1</sup> / <sub>4</sub>	9.00
184T	11 <sup>15</sup> / <sub>32</sub>	15.04		
213T	13 <sup>9</sup> / <sub>32</sub>	17.54	10 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>
215T	14 <sup>19</sup> / <sub>32</sub>	17.54		

**Note:** Modified 180 frames are longer than shown.



# J Mount Dimensions



**WG12J THRU  
WG28J**

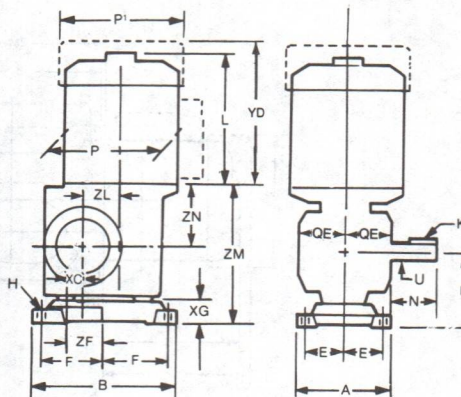
Gear-Case	A	B	D	E	F	XC	XG	ZF	ZL	U		N
										Min.	Max.	
WG12J	5½	6⅞	3¼	2¼	3	¾	1⅞	1¾	1½	.7495	.7500	1¾
WG16J	6	8	3⅞	2½	3½	1⅞	1⅞	2⅞	2	.8745	.8750	2⅞
WG21J	9¼	12¼	5½	4	5½	2⅞	1⅞	3¼	2⅞	1.1245	1.1250	2⅞
WG28J	9¼	12¼	6½	4	5½	2⅞	1⅞	3¼	3½	1.4995	1.5000	3⅞

Gear-Case	Key		ZM				ZN				H
	Sq.	Lgth.	48-56	140	180	210	48-56	140	180	210	
WG12J	.19	1.25	5⅜	—	—	—	2⅜	—	—	—	1⅜
WG16J	.19	1.25	7⅞	7⅞	—	—	3½	3½	—	—	1⅜
WG21J	.25	1.75	9¼	9¼	10⅞	10⅞	4¼	4¼	4⅜	4⅜	1⅞
WG28J	.38	2.50	—	12⅞	12¾	12¾	—	5⅞	6⅞	6⅞	1⅞

Motor Frame			L	P	P¹
OPEN	TENV	TEFC			
DB56	FB56	—	8⅞	6½	—
DC56	FC56	—	9⅞	6½	—
—	—	FC56	9⅞	6½	7⅞
—	—	FD56	10⅞	6½	7⅞
—	—	FC140T	9⅞	6½	7⅞
—	—	FD140T	10⅞	6½	7⅞

Motor Frame	L	YD	P	P¹
	OPEN	TEFC		
182T	10⅞	12⅞	9¼	9¼
184T	11⅞	13⅞	—	—
213T	13⅞	17⅞	10⅞	10½
215T	14⅞	17⅞	—	—

**Note:** Modified 180 frames are longer than shown.  
180T/210T does not apply to W12, W16, C12, or C16.

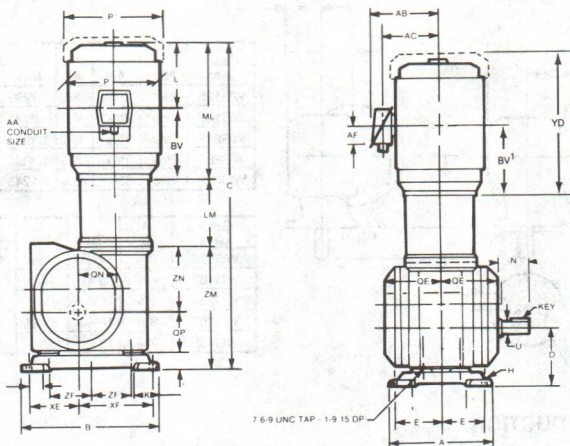


**CG12J THRU  
CG28J**

Gear-Case	A	B	D	E	F	XC	XG	ZF	ZL	U		N
										Min.	Max.	
CG12J	5½	6⅞	4 ⅞	2¼	3	1 ⅞	1 ⅞	1¾	1½	.8745	.8750	2 ⅞
CG16J	8	8	5⅞	3½	3½	1 ⅞	1⅞	2¼	2	1.1245	1.1250	2 ⅞
CG21J	9¼	12¼	6 ⅞	4	5½	2 ⅞	1⅞	3¼	2⅞	1.4995	1.5000	3 ⅞
CG28J	9¼	12¼	7 ½	4	5½	2⅞	1⅞	3¼	3½	2.1245	2.1250	4⅞

Gear-Case	Key		ZM				ZN				Q
	Sq.	Lgth.	56	140	180	210	56	140	180	210	
CG12J	⅜	1¼	8⅞	—	—	—	4⅜	—	—	—	3⅞
CG16J	¼	1¼	11⅞	11⅞	—	—	6 ⅞	6 ⅞	—	—	3⅞
CG21J	⅜	2½	14 ⅞	14 ⅞	14⅞	12⅞	7 ¾	7 ¾	8 ⅞	8 ⅞	4⅞
CG28J	½	3	—	18 ⅞	18 ⅞	18 ½	—	10⅞	10⅞	10⅞	5⅞

# WG40J & CG40J



Gear Case	A	B	D	E	H	N	QE	QN	QP	XE	XF
WG40J	15	20½	10	6¼	1⅛	4⅞	5¾	5	7	7⅞	10⅝
CG40J	15	20½	9½	6¼	1⅛	5⅞	7⅞	5	6½	7⅞	10⅝
Gear Case	ZM	ZN	Key		U						
			Sq.	Lgth.	Min.	Max.					
WG40J	15⅓ <sub>16</sub>	5⅓ <sub>16</sub>	½	¾	2.124	2.125					
CG40J	21⅓ <sub>16</sub>	11⅓ <sub>16</sub>	⅝	4	2.624	2.625					

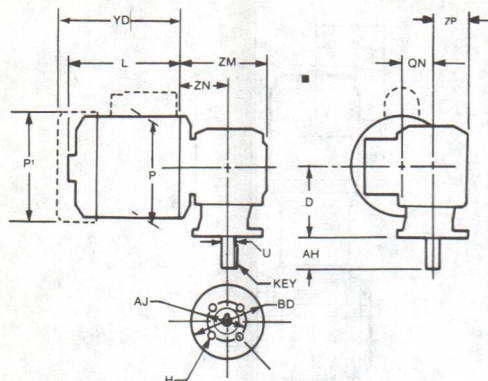
Motor Frame	ML	YD	BV	BV'	LM	P	P'	AA	AB	AC	AF
	OPEN	TEFC	OPEN	TEFC							
182TC	10 $\frac{15}{32}$	12 $\frac{15}{32}$	5 $\frac{21}{32}$	5 $\frac{17}{32}$	8 $\frac{15}{32}$	9 $\frac{1}{4}$	9 $\frac{1}{4}$	$\frac{3}{4}$	7 $\frac{9}{16}$	5 $\frac{7}{8}$	1 $\frac{15}{16}$
184TC	11 $\frac{15}{32}$	13 $\frac{15}{32}$	6 $\frac{9}{32}$	6 $\frac{17}{32}$							
213TC	13 $\frac{3}{32}$	17 $\frac{17}{32}$	7 $\frac{3}{32}$	7 $\frac{29}{32}$	8 $\frac{15}{32}$	10 $\frac{5}{8}$	10 $\frac{1}{2}$	1	8 $\frac{11}{16}$	7 $\frac{3}{16}$	1 $\frac{15}{16}$
215TC	14 $\frac{19}{32}$	17 $\frac{17}{32}$	7 $\frac{25}{32}$	8 $\frac{7}{32}$							
254TC	17 $\frac{3}{32}$	19 $\frac{9}{32}$	8 $\frac{29}{32}$	8 $\frac{29}{32}$	8 $\frac{15}{32}$	12 $\frac{5}{8}$	13	1 $\frac{1}{4}$	10 $\frac{1}{16}$	8 $\frac{1}{16}$	3 $\frac{3}{8}$
256TC	18 $\frac{25}{32}$	21 $\frac{1}{32}$	9 $\frac{25}{32}$	9 $\frac{25}{32}$							

Note: Modified 180 frames are longer than shown.



# Flange Mount Dimensions

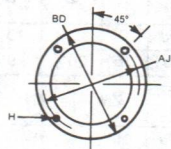
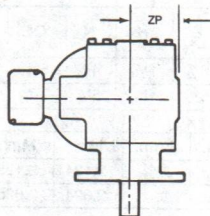
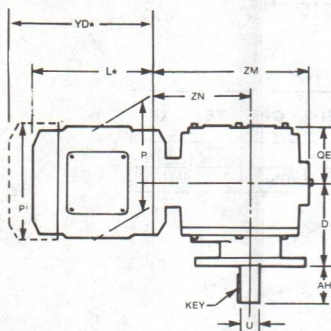
## SINGLE REDUCTION



Gear-case	H(1)	AH	AJ	U		Key		B
				Min.	Max.	Sq.	Lgth.	
WG12F	$\frac{9}{32}$	$1\frac{1}{16}$	$3\frac{1}{8}$	.7495	.7500	$\frac{3}{16}$	$1\frac{1}{4}$	4
WG16F	$\frac{1}{8}$	$2\frac{1}{16}$	4	.8745	.8750	$\frac{3}{16}$	$1\frac{1}{4}$	5
WG21F	$\frac{1}{8}$	$2\frac{1}{16}$	6	1.1245	1.1250	$\frac{1}{4}$	$1\frac{1}{4}$	7
WG28F	$\frac{1}{8}$	$3\frac{1}{16}$	$8\frac{1}{2}$	1.4995	1.5000	$\frac{3}{8}$	$1\frac{1}{4}$	10
WG40F	$\frac{1}{8}$	$3\frac{1}{8}$	$15\frac{1}{4}$	2.1245	2.1250	$\frac{1}{2}$	$3\frac{1}{8}$	16

Gear-case	D	ZM	ZN	QE	QN	XV	ZP
WG12F	$3\frac{3}{4}$	$4\frac{3}{16}$	$2\frac{23}{32}$	$2\frac{1}{4}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$2\frac{1}{2}$
WG16F	4	$6\frac{1}{16}$	$3\frac{1}{2}$	$2\frac{1}{2}$	2	3	$2\frac{1}{2}$
WG21F	5	$7\frac{1}{8}$	$4\frac{1}{4}$	$3\frac{1}{8}$	$2\frac{1}{2}$	5	$3\frac{1}{2}$
WG28F	6	$10\frac{7}{8}$	$6\frac{1}{16}$	4	$3\frac{1}{2}$	6	$4\frac{1}{2}$
WG40F	$7\frac{1}{8}$	13	$15\frac{1}{16}$	5	5	$13\frac{1}{2}$	5

## COMBINATION REDUCTION



Motor Frame			L	P	P <sup>1</sup>
OPEN	TENV	TEFC			
DB56	FB56	—	$8\frac{9}{16}$	$6\frac{1}{2}$	—
DC56	FC56	—	$9\frac{9}{16}$	$6\frac{1}{2}$	—
—	—	FC56	$9\frac{9}{16}$	$6\frac{1}{2}$	$7\frac{7}{32}$
—	—	FD56	$10\frac{1}{32}$	$6\frac{1}{2}$	$7\frac{7}{32}$
—	—	FC140T	$9\frac{9}{16}$	$6\frac{1}{2}$	$7\frac{7}{32}$
—	—	FD140T	$10\frac{1}{32}$	$6\frac{1}{2}$	$7\frac{7}{32}$

Motor Frame	L*		YD*	P	P <sup>1</sup>
	OPEN	TEFC			
182T	$10\frac{1}{32}$	$12\frac{1}{32}$	$9\frac{1}{4}$	$9\frac{1}{4}$	$9\frac{1}{4}$
184T	$11\frac{1}{32}$	$13\frac{1}{32}$			
213T	$13\frac{3}{32}$	$17\frac{1}{32}$	$10\frac{5}{8}$	$10\frac{1}{2}$	$10\frac{1}{2}$
215T	$14\frac{1}{32}$	$17\frac{1}{32}$			

Note: Modified 180 frames are longer than shown.  
 56C/140T does not apply to WG40F or CG40F.  
 180T/210T does not apply to WG12F, WG16F, CG12F or CG16F.

\* For WG40 or CG40, add  $8\frac{1}{32}$  to L and YD Dimensions.

Gear-case	H(1)	AH	AJ	U		Key		QE	QN	XV	ZP
				Min.	Max.	Sq.	Lgth.				
CG12F	$\frac{1}{8}$	2	4	.8745	.8750	$\frac{3}{16}$	$1\frac{1}{4}$	$3\frac{1}{16}$	$1\frac{1}{2}$	3	$2\frac{1}{2}$
CG16F	$\frac{1}{8}$	$2\frac{1}{2}$	$6\frac{1}{8}$	1.1245	1.1250	$\frac{1}{4}$	$1\frac{1}{4}$	$3\frac{9}{16}$	2	$5\frac{1}{4}$	3
CG21F	$\frac{1}{8}$	$3\frac{1}{8}$	$8\frac{1}{2}$	1.4995	1.5000	$\frac{3}{8}$	$1\frac{1}{4}$	4	$2\frac{1}{2}$	6	$4\frac{1}{4}$
CG28F	$\frac{1}{8}$	$4\frac{1}{2}$	$12\frac{1}{2}$	2.1245	2.1250	$\frac{1}{2}$	3	$5\frac{7}{8}$	$3\frac{1}{2}$	10	$5\frac{1}{2}$
CG40F	$\frac{1}{8}$	$3\frac{1}{8}$	$15\frac{1}{4}$	2.6240	2.6250	$\frac{5}{8}$	4	$7\frac{1}{8}$	5	$13\frac{1}{2}$	$6\frac{1}{2}$

Gear-case	BD	D	ZM				ZN			
			56	140	180	310	56	140	180	210
CG12F	5	$4\frac{7}{8}$	$7\frac{27}{32}$				$4\frac{23}{32}$			
CG16F	7	$5\frac{1}{8}$	$9\frac{25}{32}$				$6\frac{1}{8}$			3
CG21F	10	$6\frac{1}{8}$	$12\frac{23}{32}$	$12\frac{27}{32}$		$12\frac{27}{32}$	$7\frac{3}{4}$	$7\frac{3}{4}$	$8\frac{1}{16}$	$4\frac{1}{4}$
CG28F	14	$7\frac{1}{4}$	$16\frac{3}{8}$	$16\frac{1}{8}$	$16\frac{1}{8}$			$10\frac{1}{8}$	$10\frac{1}{8}$	$10\frac{1}{8}$
CG40F	$16\frac{1}{2}$	10				$19\frac{1}{8}$	$19\frac{1}{8}$		$11\frac{1}{16}$	$11\frac{1}{16}$

(1) Gear case sizes 12 thru 28 have four (4) holes; size 40 has eight (8) holes.

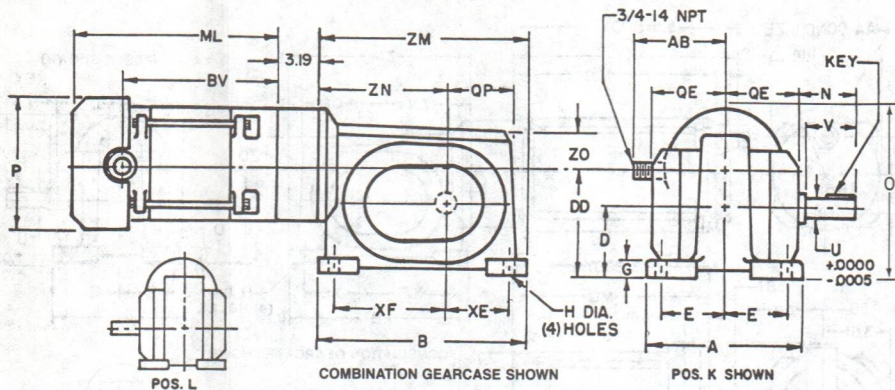




# Explosion Proof Gearmotor Dimensions

## MASTER XL GEARMOTOR

RIGHT ANGLE WORM AND COMBINATION—SIZES 12, 16, 21, 28  
EXPL. PROOF FAN COOLED A-C MOTOR FRAMES 56C  
CLASS I, GRP. D & CLASS II, GRPS, F & G, TYPES P & CS  
POSITIONS K OR L



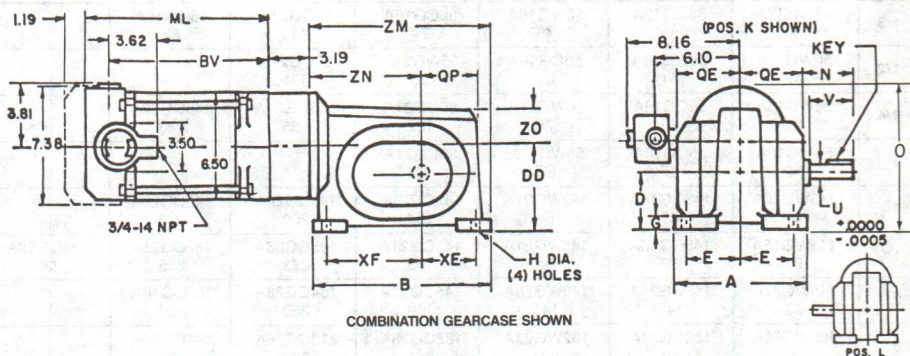
Gear Case	A	B	D	E	G	H	N	O <sup>▲</sup>	U	KEY		V
										SQ.	LG.	
WG12A	5.00	5.25	2.25	2.00	.50	.34	1.81	7.44	.7500	.19	1.25	1.75
WG16A	5.50	6.88	2.50	2.25	.62	.41	2.06	8.19	.8750	.19	1.25	2.00
WG21A	8.00	8.00	3.38	3.50	.62	.41	2.56	9.69	1.1250	.25	1.75	2.50
WG28A	9.50	9.75	4.00	4.00	.88	.53	3.38	11.19	1.5000	.38	2.50	3.25
CG12A	6.00	8.00	2.50	2.50	.50	.34	2.06	7.69	.8750	.19	1.25	2.00
CG16A	7.75	10.00	3.00	3.25	.62	.41	2.56	8.69	1.1250	.25	1.75	2.50
CG21A	9.25	12.25	4.00	4.00	.75	.53	3.38	10.31	1.5000	.38	2.50	3.25
CG28A	11.12	16.12	5.12	4.50	1.00	.66	4.69	12.31	2.1250	.50	3.50	4.56

Gear Case	DD	QE	QP	XE	XF	ZM	ZN	ZO	Appr. Wt.
WG12A	3.75	2.25	2.06	2.12	2.12	5.34	2.72	1.00	17
WG16A	6.00	3.44	3.22	3.00	3.00	6.94	3.50	1.56	30
WG21A	7.50	4.50	4.19	3.50	3.50	8.25	4.25	1.56	51
WG28A	4.00	3.06	2.91	4.00	4.00	10.47	5.72	2.12	95
CG12A	5.00	3.56	3.38	3.00	4.00	8.22	4.72	1.50	22
CG16A	6.62	4.62	3.91	3.50	5.50	10.12	6.12	1.56	49
CG21A	8.62	5.88	5.19	4.00	7.00	12.38	7.75	1.69	97
CG28A	6.62	4.62	3.91	4.94	9.06	16.47	10.47	2.06	201

6.3 BODY					
Motor Frame	ML	P	AB	BV	Appr. Wt.
K56C	10.34	7.38	4.81	7.69	31
L56C	10.84			8.19	32
M56C	11.47			8.81	33
P56C	12.22			9.56	34
R56C	13.09			10.44	35
T56C	13.97			11.31	36
U56C	14.47			11.81	37

Note: 1. Approximate Maximum Weights Given Where Available.  
2. For WM40 and CM40 Units Dimensions Consult Reliance.  
▲ At Highest Point

**MASTER XL GEARMOTOR**  
 RIGHT ANGLE WORM AND COMBINATION—SIZES 16, 21, 28  
 EXPL. PROOF TENV/TEFC A-C MOTOR FRAME SIZE 140TC  
 CLASS I, GRP. D & CLASS II, GRPS. F & G, TYPE P  
 POSITIONS K OR L



Gear Case	A	B	D	E	G	H	N	O <sup>A</sup>	U	KEY		
										SQ.	LG.	V
WG16A	5.50	6.88	2.50	2.25	.62	.41	2.06	8.31	.8750	.19	1.25	2.00
WG21A	8.00	8.00	3.38	3.50	.62	.41	2.56	9.81	1.1250	.25	1.75	2.50
WG28A	9.50	9.75	4.00	4.00	.88	.53	3.38	11.31	1.5000	.38	2.50	3.25
CG16A	7.75	10.00	3.00	3.25	.62	.41	2.56	8.81	1.1250	.25	1.75	2.50
CG21A	9.25	12.25	4.00	4.00	.75	.53	3.38	10.43	1.5000	.38	2.50	3.25
CG28A	11.12	16.12	5.12	4.50	1.00	.66	4.69	12.43	2.1250	.50	3.50	4.56

Gear Case	DD	QE	QP	XE	XF	ZM	ZN	ZO	Appr. Wt.
WG16A	4.50	2.50	2.62	3.00	3.00	6.94	3.50	1.56	30
WG21A	6.00	3.44	3.22	3.50	3.50	8.25	4.25	1.56	51
WG28A	7.50	4.50	4.19	4.00	4.00	10.47	5.72	2.12	95
CG16A	5.00	3.56	3.38	3.50	5.50	10.12	6.12	1.56	49
CG21A	6.62	4.62	3.91	4.00	7.00	12.38	7.57	1.69	97
CG28A	8.62	5.88	5.19	4.94	9.06	16.47	10.47	2.06	201

Motor Frame	ML	BV	Appr. Wt.	
			XPNV	XPFC
HM143TC	10.50	9.06	60	62
HG145TC	11.38	9.94	68	70

**Note:** For WM40 and CM40 Units Dimensions Consult Reliance.

<sup>A</sup> At Highest Point



# Weights

## SHIPPING WEIGHTS (APPROXIMATE) TYPE P (1)

HP	A-C GEARMOTORS						
1/3	56WG12A 36	56CG12A 55	56WG16A 46	56CG16A 77	56CG21A 136	56CG16A 83	
1/2	56WG12A 42	56WG16A 51	56CG16A 81	56WG21A 80	56CG21A 131		
3/4	56WG16A 55	56CG16A 82	56WG21A 78	56CG21A 132	143CG21A 135	143CG28A 283	
1	56WG16A 56	56CG16A 87	56WG21A 86	56CG21A 132			
1	143WG16A 65	143CG16A 89	143WG21A 88	143CG21A 137	143CG28A 258	145CG28A 263	
1½	145WG16A 61	145CG16A 89	145WG21A 90	145CG21A 153	145CG28A 273	182CG28A 315	184CG28A 330
2	145WG21A 96	145CG21A 143	145WG28A 141	145CG28A 269	184CG28A 360	182CG40A 660	
3	182WG21A 142	182CG21A 205	182WG28A 200	182CG28A 310	213CG28A 386	184CG40A 675	
5	184WG28A 218	184CG28A 330	184CG40A 683				
7½	213WG28A 261	213CG28A 395	213WG40A 705	254CG40A 860	213CG40A 755		

(1) For Type CS add 5 lbs.

## WEIGHT ADDITIONS – TO BE ADDED TO ABOVE LISTINGS

GEARCASE	W12	W16	W21	W28	WG40	CG12	CG16	CG21	CG28	CG40
Multi-Mount J Mount	5	10	20	40	80	6	10	50	60	55
Flange	6	10	18	35	52	6	10	45	50	35

### BRAKES

BRAKE	3,6 ft./lb.	10 ft./lb.	15 ft./lb.
WEIGHT	15	15	16

# Modifications

## General

The modifications that can be supplied are not limited to only those listed on the following pages, as these can be considered standard modifications.

For the following gearmotor modifications contact Gear Products Application Engineering:

- Open drip-proof motors
- Hi Slip motors
- Brakemotors not listed
- Intermittent duty motors
- Special shafts and keyways
- Non-standard voltages
- Non-standard multi speed motors
- D-C Motors
- Energy efficient/High performance motors
- Special lubrication/Seals
- Special paint

MASTER Gearmotors are available with a wide variety of modifications—contact Application Engineering for any not listed.

For pricing A-C Gearmotors requiring special modifications, select the Gearmotor Basic List price from the Gearmotor selection page and add the Basic Motor Modification Charge from the table below; then add the cost of desired modifications.

### BASIC MOTOR MODIFICATION CHARGE

DISCOUNT—D-46b

Qty.	Add to Gearmotor Basic List Price		
	56	140	180 & Up
1-4	\$250		\$400
5-9	\$100		
10 & Up	No Charge		

## Pricing Example:

	<div>Gearmotor Basic List Price</div>	+	<div>Basic* Motor Modification Price</div>	+	<div>Motor Modification Price</div>	+	<div>Gear Modification Price (If req'd)</div>	=	Total List
	\$653.00		\$100.00		\$147.00		\$94.00		\$994.00
Qty 7	FC56WG16A TEFC ¾ HP 1750 rpm 58 rpm output	+	Basic Mod Price	+	Easy Clean Motor	+	Easy Clean Gear Case	=	Total List
	pg. G2-56		pg. G2-75		pg. G2-78		pg. G2-78		

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100



# Modifications

## INSULATION

Normally totally enclosed A-C motors have Class B insulation.

Special environmental conditions may require the addition of a special insulation. Use the following modifications.

DISCOUNT—D-46b						
Condition*	Class*	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
Standard, High Ambient or Service Factor ■	B	Std.	Std.	Std.	Std.	Std.
	F	\$ 68	\$ 68	\$ 91	\$112	\$147
	H	88	364	1030	1157	1282
Acid, Alkali	BE	35	105	132	284	394
Abrasive	FE	100	143	200	351	510
Tropical	BJ	18	37	41	67	74
Anti-fungus	FJ	82	170	239	246	339

Class H insulation is not available on Explosion-Proof Motors.

\* Specify one.

(1) For 1.15 Service Factor—Specify Class F insulation.

## THERMOSTATS (Polyphase Motors)

Addition includes two temperature sensing thermostats per motor. Thermostats are auto-

matic reset with normally open or normally closed contacts.

DISCOUNT—D-46b				
Thermostat Type*	56 Frame	140 Frame	180 Frame	210/250 Frame
Class F & H Thermostat	\$91	\$91	\$91	106

\*Specify one.

## FREQUENCY

All standard A-C motors are designed for operation at a line frequency of 60 Hz.

If other than standard frequency is desired, use one of the following options:

DISCOUNT—D-46b					
Frequency*	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
50 Hz	\$50	\$71	\$112	\$182	\$315
60/50 Hz (Polyphase only)					

\* Specify one.

## BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G2-75

Motors with modifications in shaded areas require release quantities of 5 or more identical units.

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100

# Modifications

## ALTITUDE

electric motors are suitable for operation at altitudes up to 3,300 ft/1,000 m at a maximum ambient of up to 40°C. Satisfactory operation can also be obtained at higher altitudes and lower ambient temperatures as shown below.

30 deg. C ambient to a maximum altitude of 6,600 ft/2,200 m.

20 deg. C ambient to a maximum altitude of 9,900 ft/3,300 m.

motors having a service factor of 1.15 will operate satisfactorily at 1.0 service factor up to a maximum altitude of 9,900 ft/3,300 m.

addition of one of the following modifications provides:

- Suitable for operation at an altitude above 3,300 ft/1,000 m. and below 6,600 ft/2,000 m. 40°C ambient.

### DISCOUNT—D-46b

56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
\$68	\$68	\$91	\$112	\$147

- Suitable for operation at an altitude above 6,600 ft/2,000 m. and below 9,900 ft/3,000 m. 40°C ambient.

### DISCOUNT—D-46b

56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
\$68	\$68	\$91	\$112	\$147

- Specify one.  
Price added includes proper nameplate stamping.

## AMBIENT

standard machine is designed so that the temperature rise produced within it, added to the standard 40°C ambient, will not exceed the winding-insulation temperature limit.

If the ambient temperature is other than 40 deg. C, the addition of one of the following provides:

### DISCOUNT—D-46b

Ambient/Frame*	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
-40 deg. C ambient temperature (Includes low temp. lubricant)	\$68	\$68	\$91	\$112	\$147
50 deg. C ambient temperature					
55 deg. C ambient temperature					

high ambient designs not available on explosion-proof motors without complete engineering investigation. Contact A-C Products.

Specify one.

## GEARCASES FOR LOW TEMPERATURE APPLICATIONS:

the chart listed below applies to gearcases used in ambient temperatures between +10°F and -45°F. For lower temperatures consult factory, or motors operating at ambient temperatures lower than -25°C (-13°F), consult motor modification section. No basic modification charge

applies to motors operating between +40°C and -25°C.

### DISCOUNT—D-46b

DISCOUNT—D-46b	
CASE SIZE	LOW TEMP. ADDER*
WG12 Thru WG28 CG 12 THRU CG 28	\$ 60
WM12 Thru WM40 CG40 & CM40 CM12 Thru CM28	\$150

Mobil SHC 634 or USDA H1 Food Grade Lubricant	
Case Size	List Adder
WG12, 16, 21	\$ 10
WG28	\$ 20
WG40, H419	\$ 50
CG12	\$ 10
CG16	\$ 20
CG21	\$ 50
CG28	\$ 80
CG40	\$150

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100

## BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G2-75.

Motors with modifications in shaded areas require release quantities of 5 or more identical units.



# Modifications

## EASY CLEAN

MASTER XL EASY CLEAN gearmotors are designed and constructed to meet the most exacting requirements of food processors, canners, meat packers, bakeries, dairies, drug and cosmetic manufacturers. The EASY CLEAN line will meet the industry standards recommended by the Bakery Institute Sanitary Standards Committee (BISSC), 3-A Dairy Industry Standards Committee and others to whom the maintenance of sanitary conditions is highly important.

EASY CLEAN gearmotors feature smooth, corrosion resistant frames and end shield, easily removable fan covers and fans, corrosion proof hardware with no exposed threads or pockets which are hard to clean or are not self-draining. They may be used in either "wet" or "dry" areas and are cleanable by dry methods or by wash-down with a hose stream, and they are resistant to the corrosive action of food acids, detergents

and sanitizers. EASY CLEAN gearmotors are recommended for use in bakeries, dairy processes, ice cream plants, confectionary plants, pharmaceutical and vitamin manufacturing, cosmetic plants, packaged food plants, beverage and bottling plants, canneries and any other application requiring this special construction.

Some EASY CLEAN fractional horsepower ratings are also available in special totally enclosed, not fan cooled construction, featuring smooth exterior and epoxy treated windings suitable for both wet or dry locations. This makes the gearmotor readily cleanable without removing fan or fan cover. While corrosion resistant to a large degree and may be washed with detergent solutions, these gearmotors are better suited to applications where ease of cleaning is of utmost importance and air movement is objectionable.

## XT—ENCLOSURES

These modifications make the gearcase suitable for use outdoors or in chemical, dairy or food processing plants or other locations where high humidity, steam, chemical fumes are present or where the gearmotor is washed frequently. It must be used with a motor having the proper enclosure.

If low temperature service is required, specify "low temp service" on order.

### Corrosion-Proof XT Features:

- Cast iron gearcase.
- Stainless steel nameplate.
- Soft copper washers on motor through bolts.
- Brass lubrication fittings.
- Spring-loaded gearcase vent.
- Double lip output seal.
- Stainless steel output shaft sleeve.

## XT, BISSC and EASY CLEAN ENCLOSURES

### MOTOR ADDERS IN ADDITION TO BASIC MOTOR MOD. CHARGE

#### DISCOUNT—D-46b

Frame 56	Frame 140	Frame 180	Frame 210	Frame 250
\$147	\$159	\$221	\$309	\$494

### GEARCASE ADDERS

#### RIGHT ANGLE

#### DISCOUNT—D-46b

W12	W16	W21	W28	W40	C12	C16	C21	C28	C40
\$88	\$94	\$110	\$113	\$126	\$95	\$110	\$113	\$126	\$212

Motors with modifications in shaded areas require release quantities of 5 or more identical units.

## XT BRAKES<sup>(1)</sup>

price standard enclosed 230/460 volt poly-phase gearmotors equipped with A-C electrically braked spring-set brakes refer to gearmotor selection pages.

### DISCOUNT—D-46b

Motor Frame	Retarding Torque Lb-Ft	Self-Adjusting List Adder	LIST PRICE ADDITIONS <sup>(1)</sup>	
			ADD BASIC MOD CHARGE PLUS LIST BELOW	
			Explosion-Proof	Special Voltage
56	3	61	\$ 943	146
56	6	61	1027	
140	6	61	1803	
182	10	N/A	1620	109
184	15	N/A		
213	25	N/A		

(1) Brake coils are 1/60/230.

### LIST ADDERS FOR XT BRAKES

#### DISCOUNT—D-46b

Brake Size Ft. Lbs.	Motor Frame	List Adder*	Self-Adjusting List Adder
3	56		\$61
6	56		61
10	56		61
3	140	\$ 805	61
6	140	888	61
10	140	940	61
15	140	1044	84
10	180	1044	N/A
15	180	1150	
25	180	2820	
35	180	3030	
10	210	1044	
15	210	1150	
25	210	2820	
35	210	3132	
50	210	3342	
75	210	4177	
35	250	3133	
50	250	3342	
75	250	4386	
105	250	5012	

\* In addition to basic mod charge.

## BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G2-75.

Modifications in shaded areas require quantities of 5 or more identical units.

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100



# Modifications

## MULTI-SPEED A-C MOTORS

60 Hz; Two-Speed; Continuous Duty, Totally Enclosed; Polyphase; 230, 460 or 575 Volts; 1.0 Service Factor; Ball Bearing.

**APPLICATION**—These motors are designed for two speed operations where constant torque

output is desirable. Constant torque, two speed motors are particularly well suited for the operation of presses, mixers, tumblers, mills and many similar applications where the running load decreases in direct proportion to the increase in speed.

### DISCOUNT—D-46b

HP	Motor Rated Load rpm	No. of Wdgs.	Frame	ADD TO GEARMOTOR BASIC LIST	
				1-4	5 & Up
1/4 - 1/4	1725/1140	2	56	N/A	\$ 562
1/4 - 1/4	1725/850	1	56		619
1/2 - 1/2	1725/1140	2	56	N/A	562
1/2 - 1/4	1725/850	1	56		630
3/4 - 1/2	1725/1140	2	56	N/A	699
3/4 - 3/4	1725/850	1	56		619
1 - 3/4	1725/1140	2	56	N/A	932
1 - 1/2	1725/850	1	56		647
1 1/2	1800/1200	2	182T	\$ 771	771
	1800/900	1	145T	N/A	329
2	1800/1200	2	184T	902	902
	1800/900	1	182T	419	419
3	1800/1200	2	213T	1034	1034
	1800/900	1	184T	470	470
5	1800/1200	2	215T	1399	1399
	1800/900	1	213T	637	637
7 1/2	1800/1200	2	254T	1847	1847
	1800/900	1	215T	982	982
10	1800/1200	2	256T	2282	2282
	1800/900	1	254T	1213	1213

## VOLTAGE

- A. Standard voltage motors will operate successfully, but not necessarily in accordance with standard guarantees at voltages 10% above or below nameplate stamping at maintained frequency.
- B. Special Voltages at 60 Hz.  
When either or both of the voltages in a dual voltage rating are not standard make the additional charge for special voltage.

### 56 FRAME—STANDARD VOLTAGES

Type CS Single-Phase	Type P Polyphase
115/230 volts	200 volts 230/460 volts 575 volts

### 140—UP FRAME

60 Hz	50 Hz
Up to 10 hp	Up to 10 hp
200	200
230	380
460	400
575	440
—	550

### DISCOUNT—D-46b

Special Voltage	Motor Frame	Add to Gearmotor Basic List Price
Single line voltage of a dual voltage rating.	56	1-4 N/A
		5 & Up \$72
	140	1-4 N/A
		5 & up 55
Polyphase special voltage in range of 200 to 600 volts.	180/210	55

## BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G2-75.

Motors with modifications in shaded areas require release quantities of 5 or more identical units.

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100

# Modifications

## Flange Mounting (Add to Foot Mounted Gearmotor)

DISCOUNT—D-46b

RIGHT ANGLE ALTERNATE FLANGES (Oversized)	Gearcase	W12	C12	W16	C16	W21	C28
	O.D.	5 in.	7 in.	7 in.	10 in.	10 in.	10 in.
	List Adder	\$78	\$72	\$92	\$156	\$141	\$243

Size	Standard Shaft Dimension
W12	¾ x 1¾
W16 & C12	¾ x 2
W21 & C16	1½ x 2½
W28 & C21	1½ x 3¼
W40 & C28	2½ x 4⅞
C40	2½ x 5½

## Special Output Shaft

DISCOUNT—D-46b

Modification	Qty.	W12	C12	W16	C16	W21	C21	W28	C28	W40	C40
Standard Double Shaft Extension (2)	Any	\$ 41	\$ 41	\$ 41	\$ 49	\$ 49	\$ 63	\$ 63	\$ 99	\$ 99	\$165
CV Shaft	Any		N/C	N/C	N/C						

NOTE: Special Output Shafts—For special A1 modifications such as length, diameter, keyways, tapped or cross drilled holes, ring grooves, splines, etc., contact Application Engineering 812-376-1100

## DO NOT APPLY BASIC MOTOR MOD CHARGE ON GEARMOTORS WITH GEARHEAD MODIFICATIONS ONLY

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100

## RING TACH COUPLING KITS FOR MASTER "XL" REDUCERS

These kits consist of a special three piece coupling and mounting hardware that allows the customer to mount his Ring Tachometer assembly between a "C" Face motor

and a "C" Face XL Reducer. Note: Motors will be shipped separately when these coupling kits are supplied with "C" Face XL Reducers.

DISCOUNT — RE-9b

Kit Number	Motor Frame	"C" Face XL Reducer	Sold W/Reducer	Sold Separately
411642-01-BL	56C	Sizes 16	\$60	\$90
411642-01-AR	140TC	Sizes 16		
411642-01-BM	56C	Sizes 21 & 28		
411642-01-BN	140TC	Sizes 21 & 28		
411642-01-BP	180TC	Sizes 21 & 28	\$280	\$440
411642-01-BR	210TC	Sizes 21 & 28		



# Modifications

## Clutch/Brake Module Additions

Clutch/Brake modules are used in applications requiring frequent starting and stopping or where for other reasons it is desirable to disconnect the motor from the gear train. The modules are C-Face in—C-Face out plug in type utilizing standard C-Face motor, standard Clutch/Brakes, and standard gearcases with C-Face input. Basic module construction is open enclosure.

Price of gearmotors with Clutch/Brake modules are obtained by adding Clutch/Brake addition to the total list price of a gearmotor with

required horsepower, speed, mounting, motor features, etc. If the 90V D-C power supply is desired, add the control list price to the above. Basic modification charge for quantities less than 10 will apply.

It is very important that the gearcase selected have a minimum of Class II (service factor 1.4) capability. This is needed to compensate for the forces exerted on the gear train during starts/stops through the clutch brake operation.

DISCOUNT D-46c

CLUTCH/BRAKE MODULE SIZE	HP RANGE @ 1800 RPM	MOTOR FRAMES	MOTOR SHAFT DIAMETER	STATIC TORQUE (in-lb)	C/B THERMAL RATING @ 1800 RPM (HP-Sec/Min)	LIST PRICE ADDITION	DIMENSION SHEET
IMCCB- 50	1/4-1	56C	5/8"	264	7	629.00	602229-19-A
IMCCB-100	1/4-2	56C	5/8"	408	11	798.00	602229-19-C
IMCCB-180	1-2	143TC/145TC	7/8"	408	11	798.00	602229-19-B
IMCCB-210	3-5	182TC/184TC	1 1/8"	1200	22	1419.00	602229-20-A
IMCCB-256	7 1/2-10	213TC/215TC	1 3/8"	1200	22	1496.00	602229-20-B

DISCOUNT D-46

DISCOUNT D-41											
CLUTCH/BRAKE MODULE SIZE	TIME (mSEC.)				INERTIA WR <sup>2</sup> (Lb-Ft <sup>2</sup> )		MAX. RPM	90 vDC INPUT @ 20 deg C			
	CLUTCH		BRAKE		ARMATURE & SHAFT	ROTOR & HUB		CLUTCH		BRAKE	
	ENGAGE	DISENGAGE	ENGAGE	DISENGAGE				AMPS	OHMS	AMPS	OHMS
IMCCB- 50	50	6	35	6	.017	.025	3600	.21	434	.20	458
IMCCB-100	106	13	96	16	.050	.045	3600	.21	432	.19	476
IMCCB-180	106	13	96	16	.050	.045	3600	.21	432	.19	476
IMCCB-210	130	20	115	18	.190	.230	3600	.39	230	.36	250
IMCCB-256	130	20	115	18	.190	.230	3600	.39	230	.36	250

## DODGE/Inertia Dynamics Clutch-Brake Modules

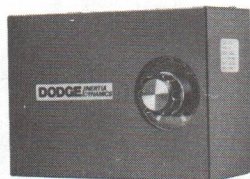
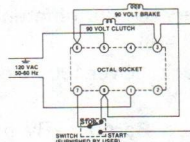
- Come **pre-assembled, pre-adjusted, and pre-burnished** therefore the unit is ready for full rated torque when you receive it.
- The **Dyna-Gap** Automatic air gap feature compensates for friction surface wear so the module never requires any additional adjustment throughout the life of the friction surfaces.
- Exclusive **heavy duty spline drive** offers greater durability, quieter operation and precise alignment over the life of the unit.
- Pre-lubricated and sealed ball bearing modules have higher B-10 life rating than competitive modules.
- The **soft-mount** rotor assembly provides quieter engagement.
- Also available in **clutch only** and **brake only** configurations.

## POWER SUPPLIES FOR C/B MODULES



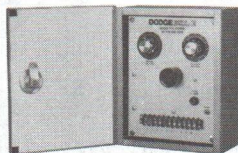
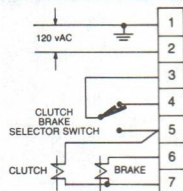
### Model 200 (w/Octal Socket)

- Controls 2 coils
- Simple on/off operation
- Full wave rectifier
- Fused for switch protection
- Industry standard 8-pin socket design



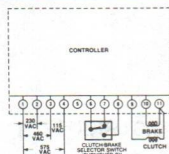
### Model 300

- Controls 2 coils
- Variable output for one coil
- Full wave rectifier
- Fused for switch protection
- Full enclosure



### Model 500

- Controls 2 coils
- Variable output for both coils
- Multiple voltage input
- Fused for switch protection
- Full enclosure



### DISCOUNT D-46C

MODEL NUMBER	OPERATING CAPACITY	50/60 Hz INPUT	VOLTS	DC OUTPUT MAX. AMPS	WATTS	LIST PRICE
Model 200 (w/Octal Socket)	2 Coils	120vAC	1) 90vDC 2) 90vDC	1.5 1.5	135 135	\$ 82.00
Model 300	2 Coils	120vAC	1) 90vDC 2) 0-90vDC	0.5 0.5	0-45 0-45	151.00
Model 500	2 Coils	120/240/ 480/575vAC	1) 0-90vDC 2) 0-90vDC	0.5 0.5	0-45 0-45	573.00

Other Power Supplies Available.

### Clutch/Brake Dimension Sheet Numbers

Gearcase Size	Gearcase Mounting Position	Motor Type	Motor Frame Size	Motor Enclosure	Dimension Sheet
W12A W16A W21A W28A	K or L	AC	56C	TEFC	600762-65
W16A W21A W28A	K or L	AC	140TC	TEFC	600762-66
W21A W28A	K or L	AC	180TC 210TC	TEFC	600762-67
C12A C16A C21A C28A	K or L	AC	56C	TEFC	600762-68
C16A C21A C28A	K or L	AC	140TC	TEFC	600762-69
C21A C28A	K or L	AC	180TC 210TC	TEFC	600762-70



## Delivery/Data Distribution

**MASTER XL Gear products are available for delivery by four different methods. These are:**

1. **Stock**—Over 100 ratings are available from stock
2. **"Red Baron"**—By marking orders "Red Baron" over 2000 ratings may be obtained in a special 3-week production cycle. Call customer service for availability.

3. **Super Cycle**—Master offers 48-hour super cycle on any rating that can be built from finished parts stock available at the time. Contact customer service for a parts check on the rating of your specification.
4. **Stock Re-Op**—Same modifications may be obtained using existing warehouse and component stock. Contact customer service to verify what is available for Re-Op.

### EXPORT BOXING

Wood Crating—Add 10% to gearmotor net price.

Std. Carton—Add 3% to gearmotor net price.

Container Pack—Add 12% to gearmotor net price.

### DATA DISTRIBUTION

Certified Dimension Sheets, Parts Lists, Instruction Manuals, Wiring Diagrams.

Each customer is entitled at no additional cost, upon request at order entry, to three (3) each of the above per order, or one (1) each per unit on

the order, depending upon whichever is greater. For quantities greater than listed above, there will be a charge of \$10.00 Net per copy of each.

Composite Drawings—special motor/gearbox \$250 Net.

## GEARMOTOR COMPONENT PRICING

MOTOR PRICE + GEARHEAD PRICE + MODIFICATION CHARGE (if any) = GEARMOTOR TOTAL LIST PRICE

### GEARCASE ADDITION (APPARENT GEAR ADDITION)

### DISCOUNT—D-46b

Case Size	List Price	C-Face Adders		Case Size	List Price	C-Face Adders		Double Shaft Adder	Easy Clean And XT Adder
		56/140	180/210/250			56/140	180/210/250		
WG12A	\$323								
WG12B	382	\$100	N/A					\$ 41	\$ 88
WG12F	382								
WG12J	403								
WG16A	418			CG12A	\$620				
WG16B	483	100	N/A	CG12B	667	\$100	N/A	41	95
WG16F	488			CG12F	674				
WG16J	502			CG12J	696				
WG21A	568			CG16A	830				
WG21B	668	100	230	CG16B	933	100	N/A	49	110
WG21F	675			CG16F	948				
WG21J	683			CG16J	974				
WG28A	1007			CG21A	1265				
WG28B	1172	120	260	CG21B	1368	100	230	63	113
WG28F	1198			CG21F	1386				
WG28J	1133			CG21J	1409				
WG40A	3185			CG28A	2558				
WG40B	N/A	N/A	25	CG28B	N/A	100	230	99	126
WG40F	3564			CG28F	2742				
WG40J	3299			CG28J	2668				
				CG40A	6030				
				CG40B	N/A	N/A	25	165	212
				CG40F	6283				
				CG40J	6195				

### 1750 RPM MOTOR ADDITION

### DISCOUNT—D-46b

1750 RPM, 4 Pole Motors 60 Hz, 115/230 or 230/460 Volts		
Motor Only Add Gearcase Pg. G2-87		
HP	Polyphase	Single-Phase
	Enc. Partial	Enc. Partial
1/4	\$ 188	\$181
1/2	194	196
3/4	203	227
1	235	264
1 1/2	247	292
2	270	370
3	294	
5	447	
7 1/2	500	
10	620	
15	729	
20	1394	
	1626	



## GEARMOTOR COMPONENTS PRICING

**MOTOR PRICE + GEARHEAD PRICE + MODIFICATION CHARGE (if any) =  
GEARMOTOR TOTAL LIST PRICE**

### 1160 RPM MOTOR ADDITION

#### DISCOUNT—D-46b

1160 RPM, 6 Pole Motors 60 Hz, 115/230 or 230/460 Volts				
Motor Only Add Gearcase Pg. G2-87				
HP	Polyphase		Single-Phase	
	Enclosed	XP	Enclosed	XP
1/4	\$ 244	\$ 415	\$255	\$391
1/2	258	444	285	420
3/4	282	468	350	485
1	291	497		
1 1/2	312	509		
2	600	1000		
3	662	1062		
5	878	1180		
7 1/2	1253	1565		
	1708	2093		

### MOTOR MODIFICATION SUMMARY (APPLIES TO ALL MOTORS)

#### DISCOUNT—D-46b

Motor Modifications—Add to Gearmotor Total List						
Add Basic Motor Modification Charge:*						
Less than 10 Units—See Pg. G2-75						
Modification	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame	
<b>Insulation</b>						
Class F	\$ 68	\$ 68	\$ 91	\$112	\$147	
Class H	88	132	182	221	291	
Class BE	35	35	44	71	91	
Class FE	100	100	138	182	238	
Class BJ	18	18	18	41	41	
Class FJ	82	82	106	150	188	
<b>Thermostats</b>						
Class B	39	40	40	50	50	
Class F & H	91	91	91	106	106	
<b>Frequency</b>	50	71	112	182	315	
Altitude	68	68	91	112	147	
Ambient	68	68	91	182	147	
Easy Clean/XT	147	159	221	309	494	
<b>Brakes:</b>						
3 Ft. Lb.	6 Ft. Lb.	10 Ft. Lb.	15 Ft. Lb.	25 Ft. Lb.	30 Ft. Lb.	50 Ft. Lb.
\$324	\$368	\$553	\$632	\$1015	\$1147	\$1397

\* When you price from this block you must add Basic Motor Modification Charge for any quantity less than 10 units. See page G2-75.

Shaded areas indicate motors are not available in quantities less than 5. See page G2-76.

# MASTER XL Right Angle Dimension Sheet Index

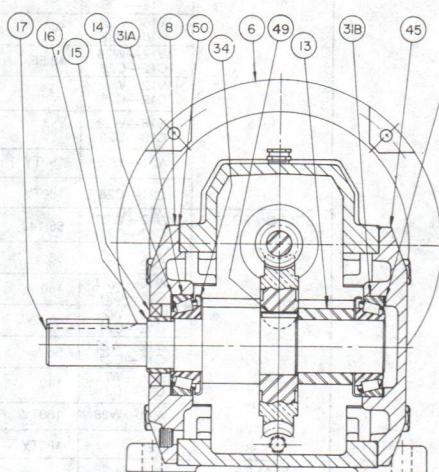
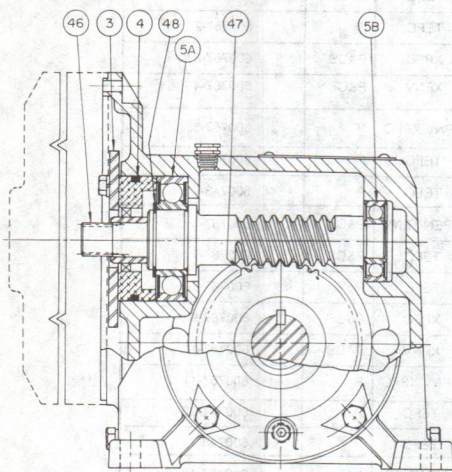
## MASTER XL GEARMOTOR—RIGHT ANGLE SINGLE WORM AND COMBINATION

Mtg.	Gearcase	Frames	Encl.	Type	D/S
CAST FT.	W12—W28 C12—C28	56/140	OPEN/TENV	P&CS	600767
	W12—W28 C12—C28	56	TEFC	P&CS	600767-1
	W16—W28 C16—C28	140	TEFC	P	600767-2
	W12—W28 C12—C28	48/56	XPFC	P&CS	600767-3
	W12—W28 C12—C28	56	XPNV	P&CS	600767-4
	W16—W28 C16—C28	140	XPNV/XPFC	P	600767-5
	W21—W28	180TY	TEFC	P	600741-91
	C21—C28	180TY	TEFC	P	600743-73
BOLT-ON-FOOT	W12—W28 C12—C21	56/140	OPEN/TENV	P&CS	600767-6
	W12—W28 C12—C21	56	TEFC	P&CS	600767-7
	W16—W28 C16—C21	140	TEFC	P	600767-7
	W12—W28 C12—C21	48/56	XPFC	P&CS	600767-9
	W12—W28 C12—C21	56	XPNV	P&CS	600767-10
	W16—W28 C16—C21	140	XPNV/XPFC	P	600767-11
	W21—W28	180TY	TEFC	P	600741-92
	C21	180TY	TEFC	P	600743-74
FLANGE	W12—W28 C12—C28	56/140	OPEN/TENV	P&CS	600767-12
	W12—W28 C12—C28	56	TEFC	P&CS	600767-13
	W16—W28 C16—C28	140	TEFC	P	600767-14
	W12—W28 C12—C28	48/56	XPFC	P&CS	600767-15
	W12—W28 C12—C28	56	XPNV	P&CS	600767-16
	W16—W28 C16—C28	140	XPNV/XPFC	P	600767-17
	W21—W28	180TY	TEFC	P	600741-93
	C21—C28	180TY	TEFC	P	600743-75
"J"	W12—W28 C12—C28	56/140	OPEN/TENV	P&CS	600767-18
	W12—W28 C12—C28	56	TEFC	P&CS	600767-19
	W16—W28 C16—C28	140	TEFC	P	600767-20
	W12—W28 C12—C28	48/56	XPFC	P&CS	600767-21
	W12—W28 C12—C28	56	XPNV	P&CS	600767-22
	W16—W28 C16—C28	140	XPNV/XPFC	P	600767-23
	W21—W28	180TY	TEFC	P	600741-90
	C21—C28	180TY	TEFC	P	600743-76

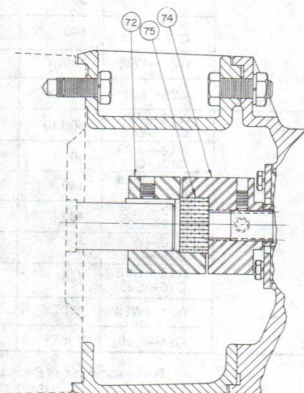
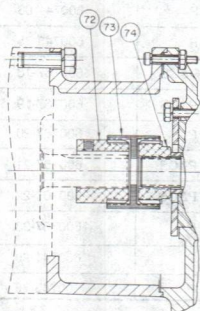
For assistance call Engineering—Columbus, Indiana  
(812) 376-1263



## MASTER XL GEARMOTORS & C-FACE REDUCERS RIGHT ANGLE—SINGLE REDUCTION SIZES WG12, WG16, WG21, WG28, WM12, WM16, WM21, WM28



## C-FACE REDUCER COUPLING PARTS SIZES WM12, WM16, WM21, WM28



Ref. No.	Parts Description	Unit Qty.	Part Numbers			
			W12	W16	W21	W28
3	Oil Seal Clamp (1)	1	411625-12A	411625-03A	411625-04A	411625-08A
* 4	Oil Seal Assembly (1)	1	411620-01F	411620-04F	411620-06F	411620-17F
* 5a	Bearing	1	79147-02K	79147-02AD	79147-02AL	79147-03V
* 5b	Bearing	1	79147-02B	79147-02K	79147-02K	79147-02P
6	Gear Case	1	79025-10A	79027-04A	86852-02A	86864-02A
8	Bearing Housing—Open	1	602020-10A	602022-03A	602035-02A	602075-02A
13	Spacer—Worm Gear	1	411622-07A	411622-10A	411622-12B	411622-16A
14	Shims	—	411623-01E	411623-01E	411623-01Y	411623-02A
*15	Oil Seal (1)	1	411627-01AL	411627-01AL	411627-01AM	411627-01A
*16	Oil Seal Sleeve (1)	1	411621-09A	411621-09A	411621-10A	411621-15D
17	Output Shaft	1	602026-11A	602027-01A	602040-01A	602040-05A
*31a	Bearing	1	411626-01BE	411626-01C	411626-01A	411626-01R
*31b	Bearing	1	411626-01D	411626-01C	411626-01A	411626-01R
34	Grease Retainer—When Req'd.	2	411624-01Y	411624-01C	411624-01E	411624-01R
45	Bearing Housing—Closed	1	602020-04A	602022-04A	602035-04A	602075-04A
*46	Worm Shaft	1	—	—	—	—
*47	Worm Gear	1	—	—	—	—
48	Lock Ring	1	0082P001	053594	056044	411637-02A
49	Key—Worm Gear	1	411688-10A	411688-10B	053180	050999
*50	Gasket (1)	2	602028-01B	602028-01A	602028-01C	602028-12A
72	Coupling Half—Motor	1	—	—	—	—
73	Coupling Sleeve	1	—	—	—	—
74	Coupling Half—Reducer	1	—	—	—	—
75	Coupling Spider—When Req'd.	1	—	—	—	—
*	Oil Seal & Gasket Kit	1	79019-38AA	79019-38AC	79019-38AE	79019-38AG
	Partial Motor—Not Shown	1				

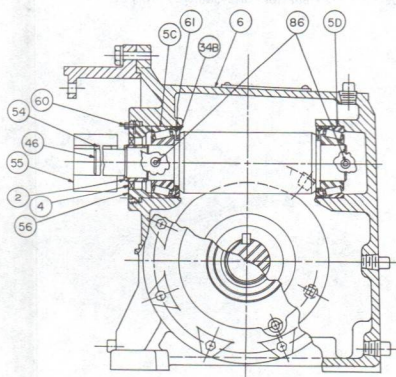
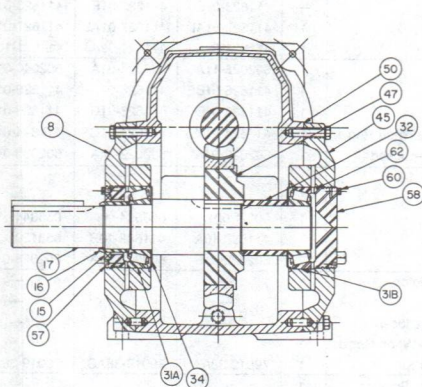
(1) Can use oil seal and gasket kit.

\* Recommended spare parts.

**Note:** For part numbers not shown contact Renewal Parts Customer Service.



## MASTER XL GEARMOTORS & C-FACE REDUCERS RIGHT ANGLE SINGLE REDUCTION SIZES WG40, WM40



Ref. No.	Parts Description	Qty. Unit	Part Numbers
* 2	Oil Seal Sleeve	1	79020-12B
* 4	Oil Seal	1	411627-01A
* 5c	Bearing	1	411626-01CC
* 5d	Bearing	1	411626-01CC
6	Gear Case	1	86884-02A
8	Bearing Housing	1	79086-04A
48	Grease Plug	2	052152
*15	Oil Seal	1	411627-01D
*16	Oil Seal Sleeve	1	411621-18H
17	Output Shaft	1	602225-01A
*31a	Bearing	1	411626-01AB
*31b	Bearing	1	411626-01AB
32	Spacer	1	411622-18C
34	Grease Retainer	2	411624-05A
34b	Grease Retainer	2	411624-01X
45	Bearing Housing—Opposite Ext.	1	79086-02A
*46	Worm Shaft	1	—
*47	Worm Gear	1	—
*50	Gasket	2	602028-12B
54	Key	1	055613
55	Coupling	1	—
56	Bearing Cap Assembly—Input	1	411620-26A
56	Bearing Cap Assembly—Open	1	411620-27A
58	Bearing Cap Assembly—Closed	1	411620-27B

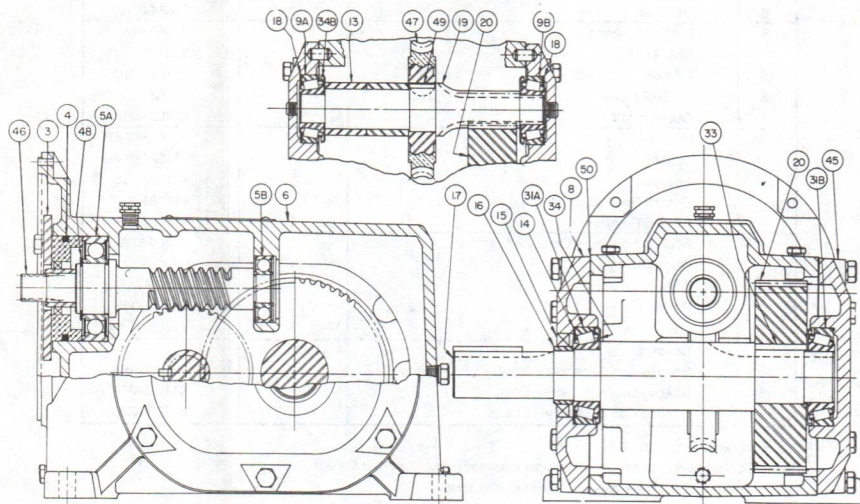
\* Recommended spare parts.

**Note:** For part numbers not shown contact Renewal Parts Customer Service.

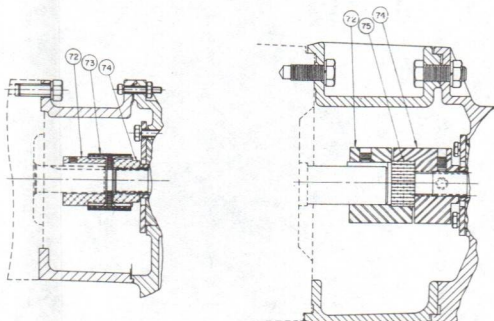
These part numbers apply to standard units only.



## MASTER XL GEARMOTORS & C-FACE REDUCERS RIGHT ANGLE—COMBINATION SIZES CG12, CG16, CG21, CG28, CM12, CM16, CM21, CM28



## C-FACE REDUCER COUPLING PARTS SIZES CM12, CM16, CM21, CM28



Ref. No.	Parts Description	Unit Qty.	Part Numbers			
			C12	C16	C21	C28
3	Oil Seal Clamp	1	411625-12A	411625-03A	411625-04A	411625-08A
* 4	Oil Seal Assembly (1)	1	411620-01F	411620-04F	411620-06F	411620-17F
* 5a	Bearing	1	79147-02K	79147-02AD	79147-02AL	79147-03V
* 5b	Bearing	1	79147-02B	79147-02K	79147-02K	79147-02P
6	Gear Case	1	79029-10A	86850-04A	86854-02A	86866-02A
8	Bearing Housing—Open	1	79031-03A	79033-03A	79036-02A	79061-02A
* 9a	Bearing	1	411626-01D	411626-01E	411626-01B	411626-01AC
* 9b	Bearing	1	411626-01D	411626-01E	411626-01B	411626-01AC
13	Spacer	—	411622-07B	411622-10A	411622-29A	411622-15B
14	Shims	—	411623-01E	411623-01Y	411623-02A	411623-03A
*15	Oil Seal (1)	1	411627-01AL	411627-01AM	411627-01A	411627-01D
*16	Oil Seal Sleeve (1)	1	411621-09A	411621-10A	411621-15B	411621-18A
17	Output Shaft	1	602026-02A	602027-02A	602040-02A	602040-06A
18	Shims	—	411623-01A	411623-01AD	411623-01E	411623-02AA
*19	Pinion Shaft	1	—	—	—	—
*20	Gear, Driven	1	—	—	—	—
31a	Bearing	1	411626-01C	411626-01A	411626-01R	411626-01AB
31b	Bearing	1	411626-01C	411626-01A	411626-01R	411626-01AB
33	Key—Gear	1	055037	055668	053552	055157
34	Grease Retainer—when Req'd.	2	411624-01C	411624-01E	411624-01R	411624-01X
45	Bearing Housing—Closed	1	79031-04A	79033-04A	79036-04A	79061-04A
*46	Worm Shaft	1	—	—	—	—
*47	Worm Gear	1	—	—	—	—
48	Lock Ring	1	0082P001	053594	056044	411637-02A
49	Key—Worm Gear	1	411688-10A	411688-10B	053180	050999
*50	Gasket (1)	2	602028-03A	602028-04A	602028-02A	602028-13A
72	Coupling Half—Motor	—	—	—	—	—
73	Coupling Sleeve	—	—	—	—	—
74	Coupling Half—Reducer	—	—	—	—	—
75	Coupling Spider—When Req'd.	—	—	—	—	—
*	Oil Seal & Gasket Kit	1	79019-38AB	79019-38AD	79019-38AF	79019-38AH
	Partial Motor—Not Shown	1				

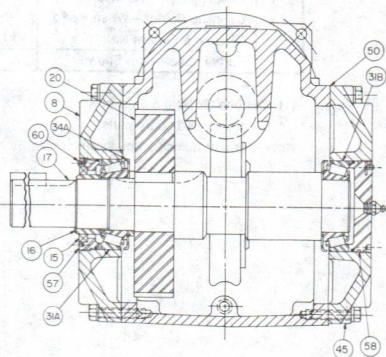
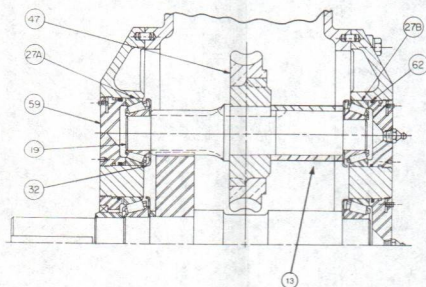
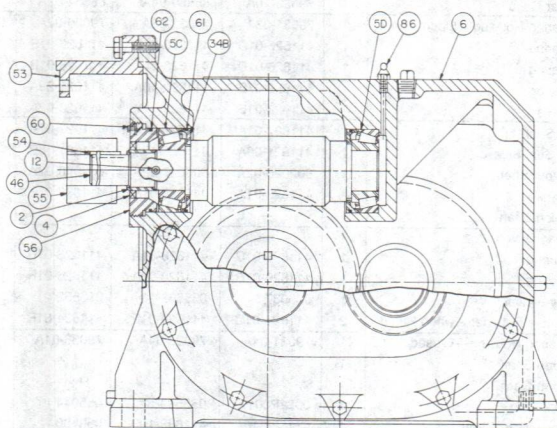
(1) Can use Oil Seal & Gasket Kit.

\* Recommended spare parts.

**Note:** For part numbers not shown contact Renewal Parts Customer Service.



## MASTER XL GEARMOTORS & C-FACE REDUCERS RIGHT ANGLE COMBINATION SIZES CG40, CM40



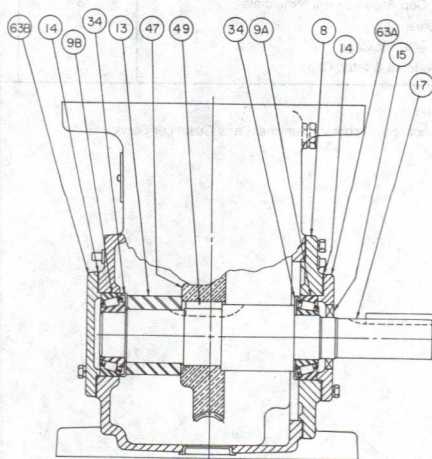
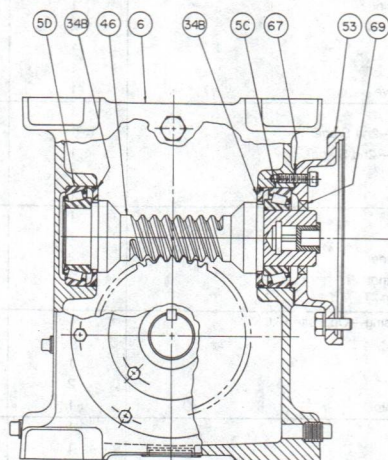
Ref. No.	Parts Description	Qty. Unit	Part Numbers
* 2	Oil Seal Sleeve	1	79020-12B
* 4	Oil Seal	1	411627-01BU
* 5c	Bearing	1	411626-01CC
* 5d	Bearing	1	411626-01CC
6	Gear Case	1	86885-02A
8	Bearing Housing	1	79087-02A
48	Grease Plug	2	058101
13	Spacer	1	411622-18-G
*15	Oil Seal	1	411627-01R
*16	Oil Seal Sleeve	1	411621-19C
17	Output shaft	1	602225-02A
*19	Pinion Shaft—2nd Stage	1	—
*20	Gear, Driven—2nd Stage	1	—
*27a	Bearing	1	411626-01CC
*27b	Bearing	1	411626-01CC
*31a	Bearing	1	411626-01BK
31b	Bearing	1	411626-01BK
34	Grease Retainer	2	411624-01G
34a	Grease Retainer	2	411624-01H
34b	Grease Retainer	2	411624-05A
45	Bearing Housing—Opposite Ext.	1	79087-02A
*46	Worm Shaft	1	—
*47	Worm Gear	1	—
*50	Gasket	2	602028-17A
53	C-Face Adaptor	1	—
54	Key	1	055437
55	Coupling	1	—
56	Bearing Cap Assembly—Input	1	411620-26A
57	Bearing Cap Assembly—Open	1	411620-27C
58	Bearing Cap Assembly—Closed	1	411620-27D
59	Bearing Cap Assembly—Intermediate	2	411620-27F
60	Lock Screw	5	411631-09B
61	O-Ring—Output Caps	2	411628-09K
62	O-Ring—Input & Inter. Caps	3	411628-09J

\* Recommended spare parts.

**Note:** For part numbers not shown contact Renewal Parts Customer Service.



## MASTER XL C-FACE REDUCER RIGHT ANGLE—SINGLE REDUCTION SIZE H419



Ref. No.	Parts Description	Qty. Unit	Part Numbers
* 5a	Roller Bearing—Input	1	411626-01BM
* 5b	Roller Bearing—Input	1	411626-01BM
6	Gearcase	1	86901-02A
8	Bearing Housing—Open	1	79143-02A
* 9a	Roller Bearing—Output	1	411626-01BU
* 9b	Roller Bearing—Output	1	411626-01BU
13	Spacer—Gear	1	411622-18D
14	Shims	AS REQD.	411623-13B, C, D, E
*15	Oil Seal	1	411627-02AB
17	Output Shaft	—	602398-01A
34	Grease Retainer—Output	2	411624-07A
34b	Grease Retainer—Input	2	411624-01T
46	Worm Shaft—Input	1	—
47	Worm Gear	1	—
49	Key—Worm Gear	1	150420
53	Adaptor—C-Face	1	79144-02A
57	Bearing Cap—Open	1	602397-02A
58	Bearing Cap—Closed	1	602397-04A
67	Shims	AS REQD.	411623-18A, B, C, D
* 4	Oil Seal—Input	1	411627-02C

\* Recommended spares.

**Note:** For part numbers not shown contact Renewal Parts Customer Service.

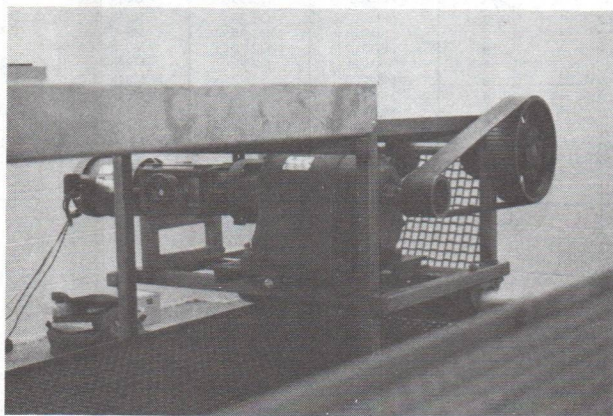
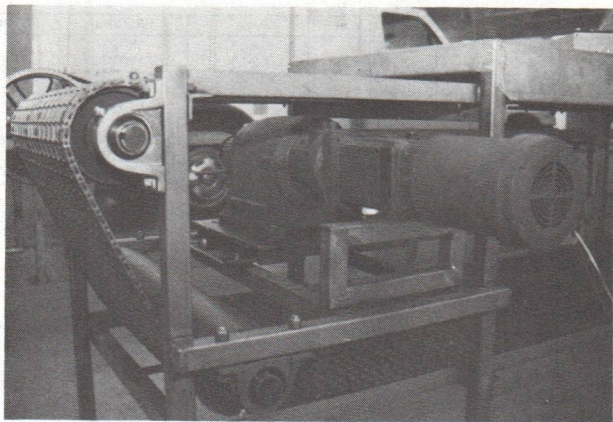


# MASTER XL Right Angle Reducer Model Number Index

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M60002	G2-34	M60255	G2-34	M60347	G2-38
M60003	G2-34	M60256	G2-34	M60349	G2-38
M60004	G2-34	M60257	G2-34	M60350	G2-38
M60005	G2-36	M60258	G2-34	M60351	G2-38
M60006	G2-36	M60260	G2-34	M60352	G2-38
M60007	G2-36	M60263	G2-34	M60353	G2-38
M60021	G2-38	M60267	G2-34	M60358	G2-38
M60022	G2-38	M60268	G2-34	M60359	G2-38
M60023	G2-38	M60270	G2-34	M60362	G2-38
M60024	G2-38	M60271	G2-34	M60363	G2-38
M60025	G2-38	M60272	G2-34	M60365	G2-38
M60026	G2-38	M60273	G2-34	M60366	G2-38
M60151	G2-24	M60274	G2-34	M60367	G2-38
M60152	G2-24	M60275	G2-34	M60368	G2-38
M60153	G2-24	M60276	G2-34	M60369	G2-38
M60157	G2-24	M60277	G2-34	M60374	G2-38
M60191	G2-30	M60278	G2-34	M60375	G2-38
M60192	G2-30	M60279	G2-34	M60800	G2-14
M60193	G2-30	M60280	G2-34	M60801	G2-14
M60194	G2-30	M60281	G2-34	M60802	G2-14
M60195	G2-30	M60282	G2-34	M60803	G2-14
M60196	G2-30	M60283	G2-34	M60804	G2-14
M60197	G2-30	M60284	G2-34	M60805	G2-14
M60198	G2-30	M60286	G2-36	M60806	G2-14
M60199	G2-30	M60287	G2-36	M60807	G2-14
M60200	G2-30	M60288	G2-36	M60808	G2-14
M60202	G2-30	M60289	G2-36	M60809	G2-14
M60203	G2-30	M60290	G2-36	M60810	G2-14
M60204	G2-30	M60291	G2-36	M60812	G2-16
M60205	G2-30	M60292	G2-36	M60813	G2-16
M60206	G2-30	M60293	G2-36	M60814	G2-16
M60207	G2-30	M60294	G2-36	M60815	G2-16
M60208	G2-30	M60297	G2-36	M60816	G2-16
M60209	G2-30	M60298	G2-36	M60817	G2-16
M60210	G2-30	M60299	G2-36	M60818	G2-16
M60211	G2-30	M60300	G2-36	M60819	G2-16
M60212	G2-30	M60301	G2-36	M60820	G2-16
M60213	G2-30	M60302	G2-36	M60821	G2-16
M60214	G2-30	M60303	G2-36	M60822	G2-16
M60215	G2-30	M60304	G2-36	M60823	G2-16
M60216	G2-30	M60305	G2-36	M60824	G2-18
M60218	G2-30	M60306	G2-36	M60825	G2-18
M60219	G2-32	M60307	G2-36	M60826	G2-18
M60220	G2-32	M60308	G2-36	M60827	G2-18
M60221	G2-32	M60309	G2-36	M60828	G2-18
M60222	G2-32	M60310	G2-36	M60829	G2-18
M60223	G2-32	M60313	G2-36	M60830	G2-18
M60224	G2-32	M60314	G2-36	M60831	G2-18
M60226	G2-32	M60315	G2-36	M60832	G2-18
M60227	G2-32	M60316	G2-36	M60833	G2-18
M60232	G2-32	M60317	G2-36	M60834	G2-18
M60233	G2-32	M60318	G2-36	M60835	G2-18
M60235	G2-32	M60319	G2-36	M60836	G2-20
M60237	G2-32	M60320	G2-36	M60837	G2-20
M60238	G2-32	M60321	G2-36	M60838	G2-20
M60239	G2-32	M60322	G2-36	M60839	G2-20
M60240	G2-32	M60323	G2-36	M60840	G2-20
M60241	G2-32	M60324	G2-36	M60841	G2-20
M60242	G2-32	M60325	G2-36	M60842	G2-20
M60243	G2-32	M60326	G2-36	M60843	G2-20
M60245	G2-34	M60330	G2-38	M60844	G2-20
M60246	G2-34	M60331	G2-38	M60845	G2-20
M60247	G2-34	M60333	G2-38	M60846	G2-20
M60248	G2-34	M60334	G2-38	M60848	G2-16
M60249	G2-34	M60335	G2-38	M60849	G2-16
M60250	G2-34	M60336	G2-38	M60850	G2-16
M60251	G2-34	M60337	G2-38	M60851	G2-16
M60252	G2-34	M60342	G2-38	M60852	G2-16

Part No.	Page	Part No.	Page	Part No.	Page
M60853	G2-16	M60895	G2-18	M61231	G2-38
M60854	G2-16	M60896	G2-20	M61232	G2-38
M60855	G2-16	M60897	G2-20	M61233	G2-38
M60856	G2-16	M60898	G2-20	M61234	G2-38
M60857	G2-16	M60899	G2-20	M61235	G2-38
M60858	G2-16	M60900	G2-20	M61239	G2-34
M60859	G2-16	M60901	G2-20	M61240	G2-30
M60860	G2-18	M60902	G2-20	M61241	G2-36
M60861	G2-18	M60903	G2-20	M61242	G2-36
M60862	G2-18	M60904	G2-20	M61243	G2-36
M60863	G2-18	M60905	G2-20	M61257	G2-34
M60864	G2-18	M60906	G2-20	M94405	G2-30
M60865	G2-18	M60908	G2-22	M94406	G2-30
M60866	G2-18	M60909	G2-22	M94408	G2-30
M60867	G2-18	M60910	G2-22	M94411	G2-32
M60868	G2-18	M60911	G2-22	M94412	G2-32
M60869	G2-18	M60912	G2-22	M94413	G2-32
M60870	G2-18	M60913	G2-22	M94414	G2-32
M60871	G2-18	M60914	G2-22	M94415	G2-32
M60872	G2-20	M60915	G2-22	M94416	G2-34
M60873	G2-20	M60916	G2-22	M94418	G2-34
M60874	G2-20	M60917	G2-22	M94419	G2-34
M60875	G2-20	M60918	G2-22	M94420	G2-34
M60876	G2-20	M60919	G2-22	M94432	G2-36
M60877	G2-20	M60920	G2-22	M94433	G2-36
M60878	G2-20	M60922	G2-22	M94435	G2-36
M60879	G2-20	M60923	G2-22	M94850	G2-32
M60880	G2-20	M60924	G2-22	M94850L1	G2-32
M60881	G2-20	M60925	G2-22	M94889	G2-32
M60882	G2-20	M61217	G2-38	M94890	G2-34
M60884	G2-18	M61218	G2-38	M94891	G2-34
M60885	G2-18	M61219	G2-38	M94891L1	G2-34
M60886	G2-18	M61221	G2-22	M94892	G2-34
M60887	G2-18	M61223	G2-22	M94893	G2-32
M60888	G2-18	M61224	G2-38	M94894	G2-32
M60890	G2-18	M61225	G2-38	M94895	G2-32
M60890	G2-18	M61226	G2-38	MR94770	G2-24
M60891	G2-18	M61227	G2-38	MR94771	G2-24
M60892	G2-18	M61228	G2-38	MR94772	G2-24
M60893	G2-18	M61229	G2-38		
M60894	G2-18	M61230	G2-38		

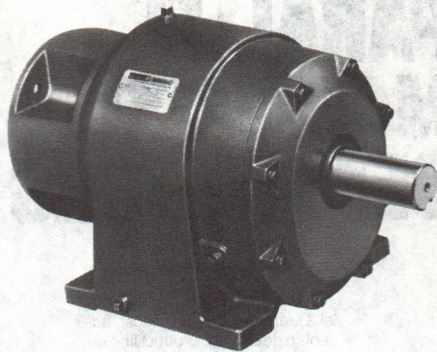




Master XL (TM21A) Triple Reduction Gear Reducer connected to a #0003 Discrac and 1 HP motor to control a 57' Long Conveyor.

**Note: Guards in the above photos have been removed for photographic purposes.**

# Master XL Parallel C-Face Speed Reducers and Gearmotors



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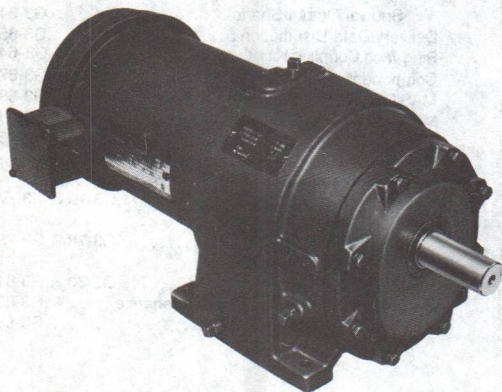


# PARALLEL MASTER<sup>®</sup> XL GEARMOTORS

The MASTER XL line of Parallel Gearmotors is the most accepted gearmotor product line on the market today.

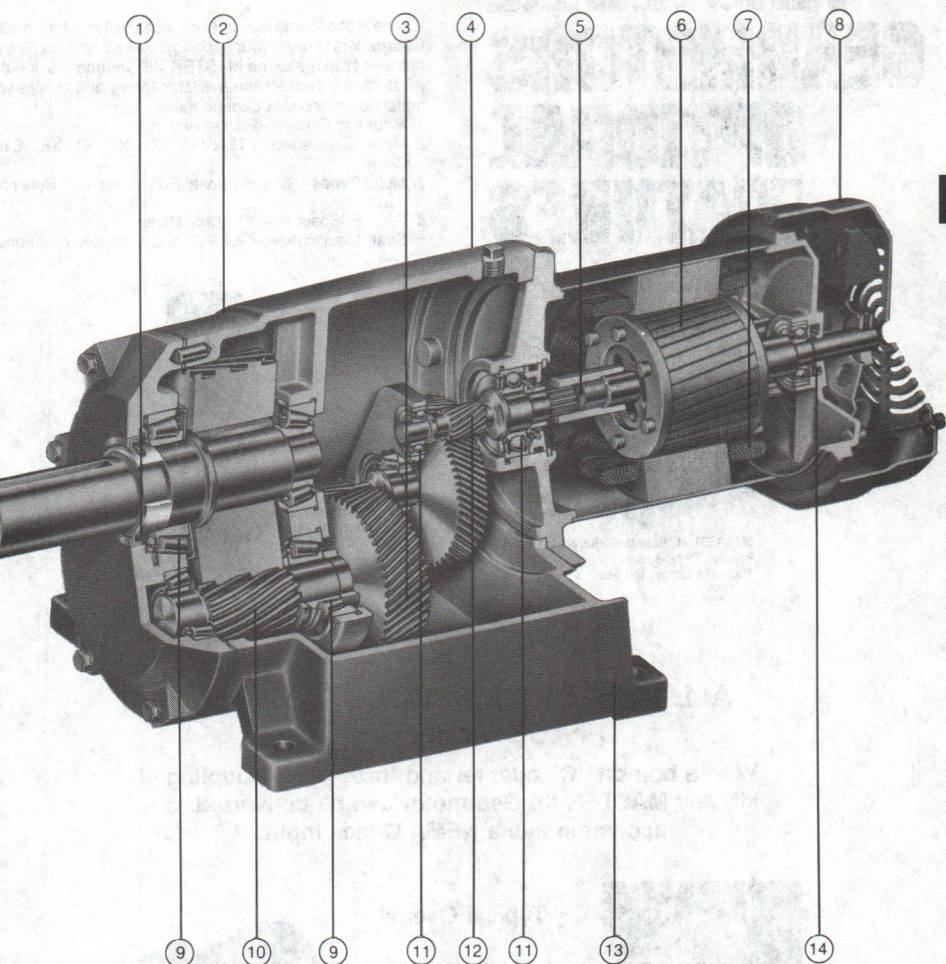
And for good reason.

Space-saving designs combined with proven Master quality in engineering and construction means you can count on efficient, dependable and economical, low speed-high torque performance in any application. Back that with a national network of sales offices, distributors, service engineers and service centers ready to provide on-the-spot service and application assistance, and it's easy to see why MASTER XL Gearmotors are specified in more applications, in more industries, than any other.



Standard foot mounted  
Parallel Master XL Gearmotor

- ① Lip seals on output shafts for oil retention and dirt exclusion.
- ② Smooth, finless design for easy cleaning.
- ③ Quiet, efficient helical gearing for high torque, low friction.
- ④ Heavy duty cast-iron gearcase.
- ⑤ Involute spline coupling for proper load sharing, with corrosion-resistant molybdenum disulfide lubrication.
- ⑥ Dynamically balanced rotating assembly for smooth, vibration-free operation.
- ⑦ Long lasting high-temperature insulation system.
- ⑧ Choice of RPM III D-C or Duty MASTER A-C drive motor.
- ⑨ Rugged roller bearings for high overhung load capacity on output shafts.
- ⑩ 98% efficiency per gear stage.
- ⑪ Long-lasting, double shielded ball bearings for high speed input shafts.
- ⑫ Straddle mounted pinion for rigid support.
- ⑬ Integrally cast feet for solid gear support and rigid mounting alignment.
- ⑭ Permanently lubricated ball bearings.

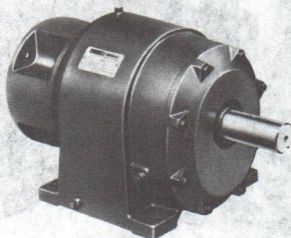




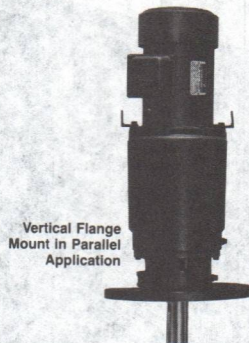
# MASTER<sup>®</sup> XL GEARMOTORS OPTIONAL FEATURES

A variety of optional features are also available for Parallel Gearmotors to meet your specific job requirements. These features help make the MASTER XL Gearmotors line the most flexible product line available today, and assure you matched component dependability.

- 1 Mounting Option—Flange output
- 2 Motor Enclosures—TENV, TEFC, XP, XT, XE, Easy Clean
- 3 Motor Types—Single Phase, Polyphase, DC, Synchronous
- 4 Gear Enclosures—XT, Easy Clean
- 5 Shaft Modifications—Length and diameter variations



**MASTER XL Speed Reducers**  
Parallel, Double and  
Triple Reduction, C-Face



**Vertical Flange  
Mount in Parallel  
Application**

## ALL MASTER XL PRODUCTS OFFER C-FACE VERSATILITY

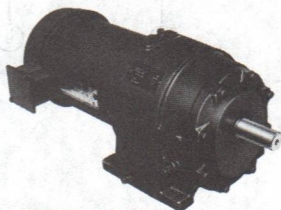
With a bolt-on "C" adapter and three-piece coupling kit, any MASTER XL Gearmotor can be converted to accommodate a NEMA C-face input.



**"C" Adapter and Three-piece  
Coupling Kit.**

### Typical Overall Length Addition

56/140	—	4 <sup>1</sup> / <sub>16</sub> "
180	—	4 <sup>5</sup> / <sub>32</sub> "
210	—	4 <sup>21</sup> / <sub>32</sub> "



**MASTER XL Gearmotor**  
Parallel, Single Reduction

# Easy Reference Table

This **Quick Reference Table** is for specific input Horsepower at 1750 RPM when Output RPM and Ratios are known. Trace across from Output RPM/Ratio columns to input HP requirements. Below, you will find Reducer Case) Size and standard unit Model (Ordering) Number.

Above, note that frame numbers are listed. Units not shaded are stocked in the A-1 or C-1 mounting positions. (see diagram on page G3-8). Shaded areas indicate non-stock units. Other rpm/ratio ratings are available. See footnote below.

## MASTER Parallel C-Face Reducers @ 1750 Input RPM ▲

Out-put RPM ★	Ratio ★	FRAME NO./INPUT HP							
		56C		56C		56C		56C	
		1/4		1/2		1/2		3/4	
		Case Size	Order No.	Case Size	Order No.	Case Size	Order No.	Case Size	Order No.
424	4.13	SM16	M94513	SM16	M94513	SM16	M94513	SM16	M94513
346	5.06	SM16	M94842	SM16	M94842	SM16	M94842	SM16	M94842
282	6.2	SM16	M94662	SM16	M94662	SM16	M94662	SM16	M94662
230	7.6	DM16	M60431	DM16	M60431	DM16	M60431	DM16	M60431
188	9.3	DM16	M94871	DM16	M94871	DM16	M94871	DM16	M94871
154	11.4	DM16	M94852	DM16	M94852	DM16	M94852	DM16	M94852
125	14.0	DM16	M60433	DM16	M60433	DM16	M60433	DM16	M60433
102	17.1	DM16	M94822	DM16	M94822	DM16	M94822	DM16	M94822
83.7	20.9	DM16	M60434	DM16	M60434	DM16	M60434	DM16	M60434
68.4	25.6	DM16	M94516	DM16	M94516	DM16	M94516	DM16	M94516
55.7	31.4	DM16	M60435	DM16	M60435	DM16	M60435	DM16	M60435
45.5	38.5	TM16	M94824	TM16	M94824	TM16	M94824	TM16	M94824
37.2	47.5	TM16	M60442	TM16	M60442	TM16	M60442	TM16	M60442
30.3	57.7	TM16	M94900	TM16	M94900	TM16	M94900	TM16	M94900
24.8	70.6	TM16	M60444	TM16	M60444	TM16	M60444	TM16	M60444

Out-put RPM ★	Ratio	FRAME NO./INPUT HP							
		56C		140TC		140TC		180TC	
		1		1 1/2		2		3	
		Case Size	Order No.	Case Size	Order No.	Case Size	Order No.	Case Size	Order No.
424	4.13	SM16	M94513	SM16	M94513	SM16	M94513	SM21	M94828
346	5.06	SM16	M94842	SM16	M94842	SM21	M94843	SM21	M94844
282	6.2	SM16	M94662	SM21	M94813	SM21	M94813	SM28	M61131
230	7.6	DM16	M60431	DM16	M60436	DM16	M60436	DM21*	M94869
188	9.3	DM16	M94871	DM16	M94871	DM16	M94871	DM21	M94872
154	11.4	DM16	M94852	DM16	M94852	DM16	M94852	DM21	M94853
125	14.0	DM16	M60433	DM16	M60439	DM16	M60439	DM21	M60480
102	17.1	DM16	M94822	DM16	M94822	DM16	M94822	DM21	M94831
83.7	20.9	DM16	M60434	DM16	M60440	DM21	M60474	DM21	M60481
68.4	25.6	DM16	M94516	DM21	M94517	DM21	M94517	DM28	M94518
55.7	31.4	DM16	M60435	DM21	M60475	DM21	M60475	DM28	M61155
45.5	38.5	TM16	M94824	TM16	M94824	TM16	M94824	TM21	M94833
37.2	47.5	TM16	M60442	TM16	M60448	TM16	M60448	TM21	M61107
30.3	57.5	TM16	M94900	TM16	M94900	TM21	M94901	TM21	M61108
24.8	70.6	TM16	M60444	TM16	M60444	TM21	M61103	TM21	M61109

Out-put RPM ★	Ratio ★	FRAME NO./INPUT HP						Note—Case size prefix letter S = Single Reduction, D = Double, T = Triple. ▲ For 860, 1160, 2500 RPM, consult rating tables. ★ 778 rpm/2.25:1, 636 rpm/2.75:1, 519 rpm/3.37:1, 20.2 rpm/86.5:1, 16.5 rpm/105.9:1, 13.5 rpm/129.7:1 also available. Consult rating table for specifications. * Actual ratio is 8.12:1—Actual RPM's are 216.
		180TC		210TC		210TC		
		5		7 1/2		10		
		Case Size	Order No.	Case Size	Order No.	Case Size	Order No.	
424	4.13	SM28	M61129	SM28	M61135	SM28	M61135	
346	5.06	SM28	M61130	SM28	M94845	DM28	M61205	
282	6.2	SM28	M61131	DM21	M94815	DM28	M61156	
230	7.6	DM21*	M94869	DM21*	M60485	DM28	M61157	
188	9.3	DM21	M94872	DM21	M60486	DM28	M61158	
154	11.4	DM21	M94853	DM28	M94854	DM28	M94854	
125	14.0	DM21	M60480	DM28	M61159	DM28	M61159	
102	17.1	DM28	M61153	DM28	M94847	DM28	M94847	
83.7	20.9	DM28	M61154	DM28	M61160	TM28	M61181	
68.4	25.6	DM28	M94518	TM21	M61213	TM28	M61181	
55.7	31.4	DM28	M61155	TM28	M61182	TM28	M61182	
45.5	38.5	TM21	M94833	TM28	M94848	TM28	M94848	
30.3	57.7	TM21	M61108	TM28	M61184	TM28	M61184	
24.8	70.6	TM28	M61177	TM28	M61185	TM28	M61185	

References	Ratings p. G3-10 & G3-11	Inst./Maint. p. G3-7	Mtg. Pos. p. G3-8	Dimens. p. G3-12—G3-15
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# Selection

## Items to consider when selecting:

1. Reducer Size.
2. Gear Ratio.
3. Type of Mounting Assembly.
4. Motor Frame Size.

**Selection Example:** A C-Face parallel gear reducer is required to drive a light duty continuous belt on a small uniformly loaded conveyor. The prime mover is a 1750 rpm electric motor. Reducer output shaft must drive conveyor @ approximately 100 rpm. Conveyor load averages 600 in. lbs. (200 lbs. over 3" radius pulley) and operates 24 hours per day.

**Step 1**—Table 2 indicates Class II Service. (Under heading: electric motor, 24 hour per day service and uniform load classification). Table 3, under Class II, shows a service factor of 1.4 Equivalent Load is calculated: 600 in. lb.  $\times$  1.4 = 840 in. lbs. Ratio is calculated by dividing input speed (1750 rpm) by required output speed (in this case, 100 rpm).  $1750 \div 100 = 17.5$  ratio.

**Table 2—AGMA Gear Classification**

Prime Mover	Duration of Service Per Day	Driven Machine Loads		
		Uniform	Medium Shock	Heavy Shock
		Class: ▲		
Electric Motor	Occasional 1/2 Hr.	I	I	I
	Intermittent 2 Hours	I	I	II
	10 Hours	I	II	III
	24 Hours	II	III	III
Electric Motor w/ Frequent Starts/Stops	Occasional 1/2 Hour	I	I	II
	Intermittent 2 Hours	I	II	III
	10 Hours	II	III	III
	24 Hours	III	III	III

▲ See Table 3 for explanation.

**Table 3—AGMA Load Classification**

Class	Definition	Equiv. Serv. Fact.
I	Steady loads not exceeding normal rating of the motor and 8 hours a day service. Moderate shock loads where service is intermittent.	1.0
II	Steady loads not exceeding the normal rating of the motor for 24 hours a day. Moderate repetitive shock loads for 8 hours a day.	1.4
III	Moderate repetitive shock loads for 24 hours a day. Heavy repetitive shock loads for 8 hours a day.	2.0

**Step 2**—Refer to 1750 rpm Input Rating Table on page G3-10. Trace down the ratio column to figure nearest the 17.5 calculated in Step 1. (Table shows 17.1). Follow across to figure that equals or exceeds the 840 in. lbs. calculated in Step 1. (Table shows 1182.) The reducer size of DM16 is listed at the top of the column.

**Step 3**—Refer to pages G3-12 thru G3-15 for dimensions and weights. Mounting positions are shown on page G3-8.

**Step 4**—Check minimum motor hp by the following formulas:

$$\text{Output HP} = \frac{\text{Speed} \times \text{Torque (req'd.)}}{63025} + \frac{100 \times 600}{63025} = .952$$

To determine input hp, divide output hp by gearbox efficiency:

$$\text{Input HP} = \frac{\text{Output HP}}{\text{Eff} \blacktriangle} = \frac{.952}{.960} = .99$$

$$\blacktriangle \text{ Where Efficiency} = \frac{\text{Max. Output HP} \star}{\text{Max. Input HP} \star} = \frac{1.92}{2.00} = .960$$

★ From rating table on page G3-10.

Thus the sum of .99 indicates that a 1 hp motor is required. Make sure gearbox will handle input hp. If selection is too small—select next size larger gearbox (Table indicates max. input hp @ 2.0. If sum of .99 would have exceeded the 2.0 figure, then the next size gearbox should have been selected.)

**Step 5, Overhung Load**—If the output shaft is connected by anything other than a flexible coupling, calculate the overhung load (OHL) from the following: Divide torque required by pitch radius of the sprocket sheave (or similar device to be used) multiply by appropriate factor: **Chain Drive = 1.0, Synchronous Belt Drive = 1.1, Spur or Helical Gear = 1.25, V-Belt Drive = 1.5, Flat Belt Drive = 2.5.**

Note that the calculated OHL must not exceed the reducer output shaft rating. For loads acting at one shaft diameter (1D) or more from bearing housing, multiply the OHL capacity by the following conversion factor: 1D = 1.0, 2D = .65, 3D = .45, 4D = .35, 5D = .30.

**Step 6**—Ordering Instructions, p. G3-8.

MOTOR COMPATIBILITY CHARTS ARE ON G3-65 to G3-75.

# Installation, Lubrication and Maintenance

## INSTALLATION

Proper Installation of MASTER speed reducers and gearmotors will insure reliable service and maximum life. Key items to minimize possible failures include:

**Gear Case Mounting**—To insure uniform pressure mount gear case on flat surface. Use uniform torque when mounting bolts are tightened.

**Shaft Overhung Loads**—Excessive overhung loads due to over tightening of belts or chains can result in broken shafts and reduce bearing life or failure.

**Couplings**—Improper coupling alignment can result in excessive stresses on gear unit shaft and bearings.

**Shock Loads**—Excessive shock loads can also result in damaging stresses on shafting and bearings.

## LUBRICATION

Proper lubrication of MASTER speed reducers is extremely important if long trouble-free operation is to be expected. Proper lubrication consists of:

- Use of proper type and grade of lubricant.
- Maintenance of correct oil level.
- Drain, flush and refill at the required intervals.

MASTER XL speed reducers and gearmotors are filled at the factory with the proper oil to the correct level for the specified mounting position. It is impossible to select one gear lubricant of petroleum origin which is usable over a wide range of temperatures. Use lubricants of the proper group as required by the ambient temperature in which the reducer will operate.

The correct amount of oil is important to the performance of a speed reducer. Each MASTER speed reducer or gearmotor has a red oil level plug which indicates the proper oil mounting level for a given mounting position. Changes in the mounting position will require relocation of the level plug and adding or draining lubricant to insure proper amount of lubricant. Check the oil level plug location diagrams on instruction tags shipped with each reducer or gearmotor.

## Recommended Lubricants—

Use only the best grade of automotive engine lubricants, unless otherwise specified. Where gear units are used out-of-doors, seasonal changes may be necessary. The proper grade of oil is listed as follows:

Ambient (Room) Temp. ♦	SAE Grades of Oil for Output Shaft Speeds of:			
	13.5 to 500 RPM	501 to 1000 RPM	1001 to 3000 RPM	Over 3000 RPM
110°F to 165°F	50 ▲	40	30	20W
60° to 110°F	40	30	20W	10W
35°F to 70°F	30	20W	10W	10W
10°F to 40°F	20W	10W	10W	...
-10°F to +20°F	10W ♦	★ ♦	...	...
-30°F to +10°F	★ ♦	★ ♦	...	...
-65°F to -20°F	★ ♦	...	...	...

- ▲ Use SAE 50 heavy duty automotive oil with oxidation inhibitor.
- ★ Use Gulf Paramount Number 22 (A naphthenic base oil with a low pour point and viscosities of 109.8 SUS @ 100° or 39.1 SUS @ 210°F). Any other oil meeting these specs would be a suitable substitute.
- ♦ Use Mobil Oil Co. Avrex Number 903.
- ♦ Special oil seals are required for temperatures below 10°F.

## MAINTENANCE

Periodic changing of lubricant is important for maximum reducer or gearmotor performance. Lubricant should be drained and refilled after the first 250 hours of operation; then every 1500 hours or six months thereafter, whichever occurs first.

In addition to lubrication and installation, regular inspection to insure tightness of bolts and screws, correct alignment of shaft couplings, no major oil leaks, no excessive heating and no unusual vibration or noises will guarantee maximum performance and life of your Master product.

References	Rating p. G3-10 & G3-11	Dimens. p. G3-12—G3-15	Mtg. Pos. p. G3-8	How to Order p. G3-8
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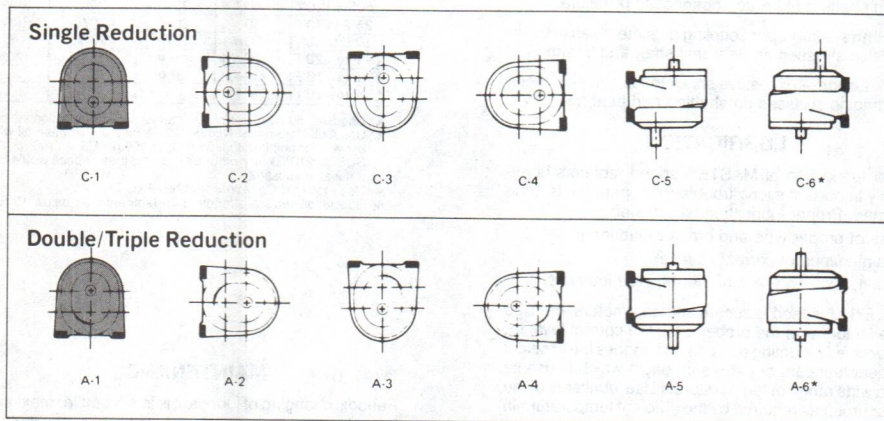


# How To Order

Once basic reducer size and ratio have been selected, refer to model (ordering) table on page G3-9. Number for selection example (D16 case size with 17:1 ratio) is M94822. it is stocked in A-1 mounting position—(see diagram below). Complete order number is M94822A-1.

"A" and "C" mounting positions are standard. The A and C-1 positions are standard in stock. All standard positions can be mounted up to  $\pm 5^\circ$  from either vertical or horizontal axis without changing oil vent, level or drain plugs.

## MOUNTING POSITIONS



■ Standard in Stock

\* Mounting position not recommended.

**NOTE:** A flooded input shaft seal should be avoided to insure optimum seal life.  
Mounting positions A-6 and C-6 shown above are those which result in a flooded input seal.

## NOMENCLATURE

**Motor Frame Size**

**Type of Gear Train:**  
 SM—Single Stage Parallel C-Face  
 DM—Double Stage Parallel C-Face  
 TM—Triple Stage Parallel C-Face

**Gear Unit Size:**  
 16 = 2" center distance  
 21 = 2½" center distance  
 28 = 3½" center distance

**Gear Unit Mounting**  
 A = Integrally Cast Foot  
 F = Footless (Flange)

**Ratio**

Examples:  
**140 SM21A-60 MASTER XL** Parallel Speed Reducer (140T motor frame, Single stage parallel gearing, 2½" c.d., Integrally cast foot & 60:1 ratio).  
**140 DM28A-60 MASTER XL** Parallel Speed Reducer (140T motor frame, Double stage, parallel gearing, 3½" c.d., Integrally cast foot & 60:1 ratio).  
**140 TM16F-60 MASTER XL** Parallel Speed Reducer (140T motor frame, Triple stage parallel gearing, 2" c.d., Flange mount & 60:1 ratio).

References	Ratings p. G3-10 & G3-11	Dimen. p. G3-12—G3-15	Inst./Maint. p. G3-7	Model Nos. p. G3-9
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# Model Ordering Numbers

## Single Reduction Units

Red. Size	Frames	Ratios/Model (Ordering) Nos. ★					
		2.25	2.75	3.37	4.13	5.06	6.2
SM16A	56C	M60425	M94866	M60427	M94513▲	M94842▲	M94662▲
	140TC	M60428	M94866	M60430	M94513▲	M94842▲	M94662▲
SM21A	140TC	M60460	M60461	M60462	M60463	M94843▲	M94813▲
	180TC	M60464	M60465	M60466	M94828▲	M94844▲	M60467
	210TC	M60454	M60455	M60456	M60457	M60458	M60459
SM28A	180TC	M61126	M61127	M61128	M61129	M61130	M61131
	210TC	M61132	M61133	M61134	M61135	M94845▲	M61136

▲ Stocked in C-1 mounting position.

★ Add mounting designation to this number.

See mounting position diagram on previous page.

## Double Reduction Units

Red. Size	Frames	Ratios/Model (Ordering) Nos. ★									
		5.06	6.2	7.6	9.3	11.4	14.0	17.1	20.9	25.6	31.4
M16A	56C	M61189	M61190	M60431	M94871▲	M94852▲	M60433	M94822▲	M60434	M94516▲	M60435
	140TC	M61191	M61192	M60436	M94871▲	M94852▲	M60439	M94822▲	M60440	M94516▲	M60441
M21A	140TC	M60468	M60469	M60470	M60471	M60479	M60472	M60473	M60474	M94517▲	M60475
	180TC	M60476	M94814▲	M94869▲	M94872▲	M94853▲	M60480	M94831▲	M60481	M60482▲	M60483
	210TC	M60484	M94815	M60485	M60486	M60487	M60488	M60489	M60490	M60491	M60492
M28A	140TC	M61203	M61138	M61139	M61140	M61141	M61142	M61143	M61144	M61145	M61146
	180TC	M61204	M61148	M61149	M61150	M61151	M61152	M61153	M61154	M94518▲	M61155
	210TC	M61205	M61156	M61157▲	M61158▲	M94854▲	M61159	M94847▲	M61160	M61161	M61162

▲ Stocked in A-1 mounting position.

★ Add mounting designation to this number.

See mounting position diagram on previous page.

## Triple Reduction Units

Red. Size	Frames	Ratios/Model (Ordering) Nos. ★									
		20.9	25.6	31.4	38.5	47.5	57.7	70.6	86.5	105.9	129.7
M16A	56C	M61193	M61194	M61195	M94824▲	M60442	M94900	M60444	M60445	M60446	M60447
	140TC	M61196	M61197	M61198	M94824▲	M60448	M94900	M60450	M60451	M60452	M60453
M21A	140TC	M61209	M61211	M61199	M61100	M61101	M94901	M61103	M61200	M61105	M61106
	180TC	M61210	M61212	M61201	M94833▲	M61107	M61108	M61109	M61202	M61111	M61112
	210TC	M61216	M61213	M61214	M61113	M61114	M61115	M61116	M61215	M61118	M61119
M28A	140TC	M61236	M61163	M61164	M61165	M61206	M61167	M61168	M61169	M61170	M61171
	180TC	M61237	M61172	M61173	M61174	M61207	M61176	M61177	M61178	M61179	M61180
	210TC	M61238	M61181	M61182	M94848▲	M61208	M61184	M61185	M61186	M61187	M61188

▲ Stocked in A-1 mounting position.

★ Add mounting designation to this number.

See mounting position diagram on previous page.

For units not listed order by nomenclature.

References	Ratings p. G3-10 & G3-11	Dimen. p. G3-12—G3-15	Mtg. Pos. p. G3-8	Inst./Maint. p. G3-7	Pricing G3-18
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# Rating Tables

## 2500 RPM INPUT

Nominal Ratio	Nominal Output RPM	CASE SIZE/RATING DATA											
		SM16 (SINGLE)				SM21 (SINGLE)				SM28 (SINGLE)			
		Max. Input HP	Output		OHL Output Shaft	Max. Input HP	Output		OHL Output Shaft	Max. Input HP	Output		OHL Output Shaft
			Torque (In. Lbs.)	Max. HP			Torque (In. Lbs.)	Max. HP			Torque (In. Lbs.)	Max. HP	
2.25	1111	6.54	363	6.40	239	10.30	572	10.09	500	23.50	1306	23.03	758
2.75	909	5.10	347	5.00	253	9.07	616	8.89	536	20.80	1413	20.38	809
3.37	742	4.03	336	3.95	260	7.60	633	7.45	577	17.40	1448	17.05	875
4.13	605	3.06	313	3.00	269	5.86	600	5.75	628	14.10	1438	13.82	948
5.06	494	2.15	269	2.11	285	4.66	583	4.57	677	10.70	1337	10.49	1037
6.2	403	1.61	247	1.58	292	3.33	510	3.26	738	7.52	1151	7.37	1141
DM16 (DOUBLE)													
5.06	494	6.51	797	6.25	542	11.7	1443	11.2	871	29.8	3613	28.6	1609
6.2	403	5.35	805	5.14	586	10.7	1605	10.3	905	26.4	3993	25.3	1710
7.6	329	5.81	1068	5.59	444	10.7	2103	10.3	918	23.2	4266	22.3	1828
9.3	269	5.00	1123	4.79	475	10.00	2205	9.41	948	20.9	4702	20.1	1925
11.4	219	4.23	1167	4.06	510	8.60	2372	8.26	1000	18.5	5102	17.8	2037
14.0	179	3.70	1253	3.55	540	7.24	2452	6.95	1080	15.5	5250	14.88	2184
17.1	146	2.74	1134	2.63	615	5.86	2424	5.63	1192	12.9	5337	12.38	2341
20.9	120	2.26	1143	2.17	672	4.08	2063	3.92	1404	10.4	5258	9.98	2529
25.6	98	1.93	1195	1.85	718	3.37	2087	3.24	1517	8.98	5561	8.62	2477
31.4	80	1.61	1223	1.54	773	2.75	2089	2.64	1642	7.50	5583	7.06	2475
DM21 (DOUBLE)													
5.06	494	6.51	797	6.25	542	11.7	1443	11.2	871	29.8	3613	28.6	1609
6.2	403	5.35	805	5.14	586	10.7	1605	10.3	905	26.4	3993	25.3	1710
7.6	329	5.81	1068	5.59	444	10.7	2103	10.3	918	23.2	4266	22.3	1828
9.3	269	5.00	1123	4.79	475	10.00	2205	9.41	948	20.9	4702	20.1	1925
11.4	219	4.23	1167	4.06	510	8.60	2372	8.26	1000	18.5	5102	17.8	2037
14.0	179	3.70	1253	3.55	540	7.24	2452	6.95	1080	15.5	5250	14.88	2184
17.1	146	2.74	1134	2.63	615	5.86	2424	5.63	1192	12.9	5337	12.38	2341
20.9	120	2.26	1143	2.17	672	4.08	2063	3.92	1404	10.4	5258	9.98	2529
25.6	98	1.93	1195	1.85	718	3.37	2087	3.24	1517	8.98	5561	8.62	2477
31.4	80	1.61	1223	1.54	773	2.75	2089	2.64	1642	7.50	5583	7.06	2475
DM28 (DOUBLE)													
5.06	494	6.51	797	6.25	542	11.7	1443	11.2	871	29.8	3613	28.6	1609
6.2	403	5.35	805	5.14	586	10.7	1605	10.3	905	26.4	3993	25.3	1710
7.6	329	5.81	1068	5.59	444	10.7	2103	10.3	918	23.2	4266	22.3	1828
9.3	269	5.00	1123	4.79	475	10.00	2205	9.41	948	20.9	4702	20.1	1925
11.4	219	4.23	1167	4.06	510	8.60	2372	8.26	1000	18.5	5102	17.8	2037
14.0	179	3.70	1253	3.55	540	7.24	2452	6.95	1080	15.5	5250	14.88	2184
17.1	146	2.74	1134	2.63	615	5.86	2424	5.63	1192	12.9	5337	12.38	2341
20.9	120	2.26	1143	2.17	672	4.08	2063	3.92	1404	10.4	5258	9.98	2529
25.6	98	1.93	1195	1.85	718	3.37	2087	3.24	1517	8.98	5561	8.62	2477
31.4	80	1.61	1223	1.54	773	2.75	2089	2.64	1642	7.50	5583	7.06	2475
TM16 (TRIPLE)													
20.9	122	5.57	2705	5.24	1422	11.7	5776	11.0	3494	24.8	14,123	28.0	4841
25.6	97.7	4.57	2735	4.30	1539	10.7	6276	10.06	3658	26.4	15,475	24.8	895
31.4	79.6	3.69	2767	3.47	1674	9.97	7771	9.37	3882	20.00	14,281	10.04	6197
38.5	64.9	3.80	3466	3.57	1238	8.50	7752	7.99	3218	20.00	18,057	18.6	6374
47.1	53.1	3.21	3581	3.02	1334	7.50	8234	6.94	3419	15.37	16,861	14.45	6323
57.7	43.4	2.50	3417	2.35	1488	6.33	8652	5.95	3648	15.00	20,365	14.0	7208
70.6	35.4	2.16	3612	2.03	1584	5.56	9298	5.23	3859	12.9	21,574	12.13	7651
86.5	28.9	1.71	3504	1.61	1743	3.66	7743	3.44	4655	9.62	19,712	9.04	8374
105.9	23.6	1.50	3637	1.36	1800	3.37	8454	3.17	4571	8.67	21,749	8.15	8849
129.7	19.3	1.21	3718	1.14	1779	2.75	8449	2.59	4578	7.52	23,104	7.07	9396

## 1750 RPM INPUT

Nominal Ratio	Nominal Output RPM	CASE SIZE/RATING DATA													
		SM16 (SINGLE)				SM21 (SINGLE)				SM28 (SINGLE)					
		Max. Input HP	Output		OHL Output Shaft	Max. Input HP	Output		OHL Output Shaft	Max. Input HP	Output		OHL Output Shaft		
			Torque (In. Lbs.)	Max. HP			Torque (In. Lbs.)	Max. HP			Torque (In. Lbs.)	Max. HP			
2.25	778	4.77	378	4.67	229	8.19	650	8.03	552	18.60	1477	18.23	840		
2.75	636	3.72	361	3.64	245	7.05	683	6.90	596	16.50	1601	16.17	895		
3.37	519	3.00	351	2.89	252	5.33	635	5.23	653	13.20	1569	12.94	980		
4.13	424	2.23	324	2.18	264	4.10	600	4.02	710	10.40	1515	10.19	1068		
5.06	346	1.57	281	1.54	282	3.26	583	3.20	762	7.83	1398	7.67	1164		
6.2	282	1.17	257	1.15	288	2.42	529	2.37	785	5.49	1201	5.38	1283		
5.06	346	DM16 (DOUBLE)				DM21 (DOUBLE)				DM28 (DOUBLE)					
		4.65	813	4.46	619	9.40	1625	9.02	957	23.5	4062	22.5	1785		
		6.2	282	3.88	835	3.72	666	8.47	1815	8.13	1000	20.8	4494	19.9	1898
		7.6	230	4.52	1187	4.34	495	8.40	2359	8.06	1018	18.4	4833	17.7	2026
9.3	188	3.89	1250	3.73	528	7.65	2459	7.34	1054	16.6	5335	15.9	2131		
11.4	154	3.29	1296	3.16	568	6.32	2490	6.07	1151	15.0	5752	14.02	2258		
14.0	125	2.75	1331	2.64	615	5.10	2468	4.90	1267	12.3	5951	11.81	2360		
17.1	102	2.00	1182	1.92	702	4.10	2423	3.94	1394	10.0	5638	9.16	2420		
20.9	84	1.58	1141	1.52	774	3.00	2102	2.79	1607	7.75	5598	7.44	2471		
25.6	68	1.36	1203	1.31	825	2.40	2123	2.30	1735	6.33	5600	6.08	2462		
31.4	56	1.13	1226	1.08	888	2.00	2105	1.86	1878	5.31	5762	5.10	2439		
20.9	85	TM16 (TRIPLE)				TM21 (TRIPLE)				TM28 (TRIPLE)					
		3.97	2767	3.73	1627	9.40	6629	8.84	3867	23.5	16,001	22.1	5377		
		25.6	68	3.30	2833	3.10	1751	8.47	7067	7.96	4056	20.8	17,383	19.5	6265
		31.4	56	2.70	2908	2.54	1896	7.15	7992	6.72	4398	15.1	16,045	14.2	6886
38.5	45	2.65	3453	2.49	1451	6.60	8599	6.20	3589	15.6	20,324	14.7	7088		
47.1	37	2.25	3586	2.12	1557	5.74	9149	5.40	3808	11.14	17,551	10.47	7141		
70.6	30	1.74	3398	1.64	1729	5.0	9607	4.63	4064	11.7	22,845	11.0	8012		
86.5	25	1.51	3608	1.42	1829	4.10	9795	3.85	4351	10.0	22,792	8.97	8599		
105.9	20	1.20	3513	1.13	1837	2.60	7858	2.44	4642	7.02	20,549	6.60	9451		
129.7	16.5	1.02	3655	.96	1798	2.45	8780	2.30	4536	6.33	22,685	5.95	9439		
	13.5	.84	3700	.79	1789	2.0	8515	1.82	4569	5.49	24,096	5.16	9307		

# 1160 RPM INPUT

Ratio	Nominal Output RPM	CASE SIZE/RATING DATA												
		SM16 (SINGLE)				SM21 (SINGLE)				SM28 (SINGLE)				OHL Output Shaft
		Max. Input HP	Output		OHL Output Shaft	Max. Input HP	Output		OHL Output Shaft	Max. Input HP	Output			
			Torque (In. Lbs.)	Max. HP			Torque (In. Lbs.)	Max. HP			Torque (In. Lbs.)	Max. HP		
2.25	516	3.31	396	3.24	210	6.20	740	6.07	623	14.20	1701	13.92	948	
2.75	422	2.59	379	2.54	229	5.00	712	4.77	686	12.60	1844	12.35	1009	
3.37	344	2.04	366	2.00	246	3.71	665	3.64	745	9.15	1641	8.97	1124	
4.13	281	1.54	339	1.51	259	3.00	625	2.78	768	7.5	1600	7.13	1223	
5.06	229	1.08	292	1.06	278	2.26	610	2.22	772	5.44	1465	5.33	1334	
6.2	187	.80	264	.78	288	1.66	548	1.63	785	3.80	1254	3.72	1457	
DM16 (DOUBLE)						DM21 (DOUBLE)				DM28 (DOUBLE)				
5.06	229	3.19	843	3.06	718	7.30	1920	7.00	1066	17.9	4668	17.1	2013	
6.2	187	2.66	865	2.55	772	6.43	2079	6.17	1125	15.8	5031	15.20	2134	
7.6	153	3.37	1335	3.24	562	5.70	2415	5.47	1209	14.0	5548	13.44	2280	
9.3	125	2.75	1333	2.64	614	5.20	2521	4.99	1255	12.6	6110	12.10	2310	
11.4	102	2.26	1343	2.17	669	4.28	2544	4.11	1367	10.5	6241	10.08	2218	
14.0	83	1.87	1365	1.80	725	3.52	2569	3.38	1486	8.67	6329	8.32	2258	
17.1	68	1.37	1221	1.31	817	3.00	2532	2.73	1626	6.61	5893	6.35	2384	
20.9	56	1.05	1144	1.09	906	2.00	2136	1.88	1873	5.20	5666	4.99	2464	
25.6	45	.90	1199	.86	967	1.61	2149	1.55	2022	4.28	5713	4.11	2433	
31.4	37	.76	1236	.73	1166	1.29	2112	1.24	2187	3.67	6008	3.52	2351	
TM16 (TRIPLE)						TM21 (TRIPLE)				TM28 (TRIPLE)				
20.9	56	2.75	2909	2.59	1883	7.30	7222	6.86	4341	17.9	18,282	16.83	6057	
25.6	45	2.24	2885	2.11	1965	6.34	7991	5.96	4592	15.8	19,888	14.8	7068	
31.4	37	1.84	2946	1.73	1956	4.89	8277	4.60	4596	11.5	18,435	10.81	7773	
38.5	30	1.76	3459	1.65	1722	5.0	9729	4.65	4057	11.9	23,389	11.19	7982	
47.1	25	1.50	3607	1.41	1837	4.18	10,051	3.93	4331	7.64	18,103	7.18	8200	
57.7	20	1.15	3388	1.08	1881	3.42	10,074	3.22	4371	7.96	23,448	7.48	9239	
70.6	16.4	1.01	3640	.95	1811	2.84	10,236	2.67	4362	6.61	23,824	6.21	9342	
86.5	13.4	.79	3493	.74	1868	1.80	8202	1.69	4605	5.00	21,550	4.59	9560	
105.9	11.0	.68	3660	.64	1798	1.63	8812	1.53	4539	4.28	23,139	4.02	9408	
129.7	8.94	.56	3721	.53	1789	1.33	8807	1.25	4541	3.67	24,300	3.45	9301	

# 600 RPM INPUT

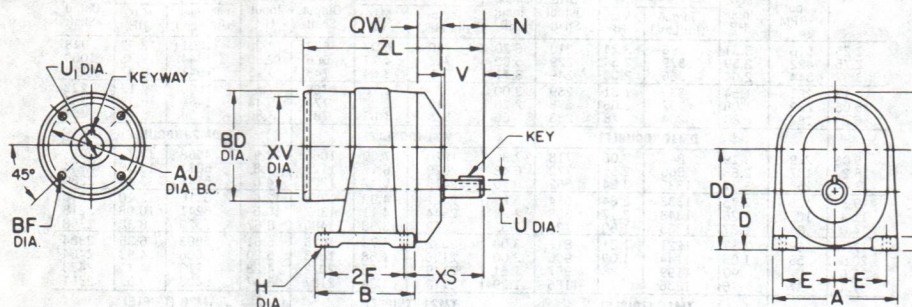
Ratio		Nominal Output RPM	CASE SIZE/RATING DATA											
			SM16 (SINGLE)			OHL Output Shaft	SM21 (SINGLE)			OHL Output Shaft	SM28 (SINGLE)			OHL Output Shaft
			Max. Input HP	Output (In. Lbs.)			Max. Input HP	Output (In. Lbs.)			Max. Input HP	Output (In. Lbs.)		
2.25	267	1.81	418	1.77	194	3.45	796	3.38	728	8.57	1984	8.40	1166	
2.75	218	1.40	396	1.37	217	2.72	768	2.66	736	6.98	1975	6.84	1269	
3.37	178	1.11	386	1.09	228	2.06	715	2.02	750	5.04	1748	4.94	1408	
4.13	145	.84	356	.82	250	1.57	670	1.54	760	4.00	1700	3.92	1524	
5.06	119	.58	302	.57	273	1.25	650	1.23	765	3.00	1562	2.94	1655	
6.2	97	.43	277	.42	283	.90	573	.88	779	2.09	1333	2.05	1749	
		DM16 (DOUBLE)				DM21 (DOUBLE)				DM28 (DOUBLE)				
5.06	119	1.72	874	1.65	908	4.8	2440	4.61	1273	11.5	5798	11.0	2387	
6.2	97	1.43	901	1.37	976	3.96	2475	3.80	1385	10.0	6019	9.26	2321	
7.6	79	1.79	1371	1.72	738	3.10	2539	2.98	1564	8.16	6251	7.83	2252	
9.3	65	1.50	1369	1.40	803	2.75	2578	2.64	1648	6.84	6412	6.57	2213	
11.4	53	1.22	1402	1.17	865	2.24	2574	2.15	1791	5.61	6447	5.39	2199	
14.0	43	1.02	1439	.98	930	1.87	2639	1.80	1929	4.59	6477	4.41	2179	
17.1	35	.74	1276	.71	1042	1.53	2637	1.47	2089	3.64	6274	3.49	2241	
20.9	29	.56	1140	.52	1156	1.02	2149	.98	2385	2.81	5920	2.70	2398	
25.6	23	.46	1184	.44	1239	.84	2160	.80	2484	2.35	6064	2.26	2288	
31.4	19	.39	1228	.37	1320	.67	2130	.65	2499	2.00	6140	1.86	2290	
		TM16 (TRIPLE)				TM21 (TRIPLE)				TM28 (TRIPLE)				
20.9	29	1.49	3044	1.40	1940	4.08	8334	3.84	4590	9.95	19,648	9.35	7577	
25.6	23	1.21	2987	1.14	1949	3.48	8590	3.27	4561	10.0	23,600	9.00	8689	
31.4	19	.97	3024	.91	1943	2.68	8820	2.52	4534	7.50	22,748	6.90	9424	
38.5	16	.92	3481	.86	1881	2.71	10,298	2.55	4384	6.53	24,814	6.14	9299	
47.1	12.7	.77	3580	.72	1814	2.19	10,181	2.06	4349	4.17	18,774	3.87	8548	
57.7	10.4	.60	3440	.57	1879	1.78	10,137	1.67	4370	4.28	24,375	4.02	9279	
70.6	8.5	.52	3630	.49	1812	1.50	10,174	1.37	4365	3.63	25,295	3.41	9186	
86.5	6.9	.41	3466	.38	1867	.97	8576	.91	4562	2.69	22,966	2.53	9435	
105.9	5.7	.34	3596	.32	1845	.88	9198	.83	4495	2.35	24,563	2.21	9278	
129.7	4.6	.29	3725	.27	1771	.75	9140	.67	4495	2.00	25,475	1.87	9152	

References	Dimen. p.G3-12—G3-15	Inst./Maint. p. G3-7	Mtg. Pos. p.G3-8	How to Order p.G3-8	Pricing G3-18
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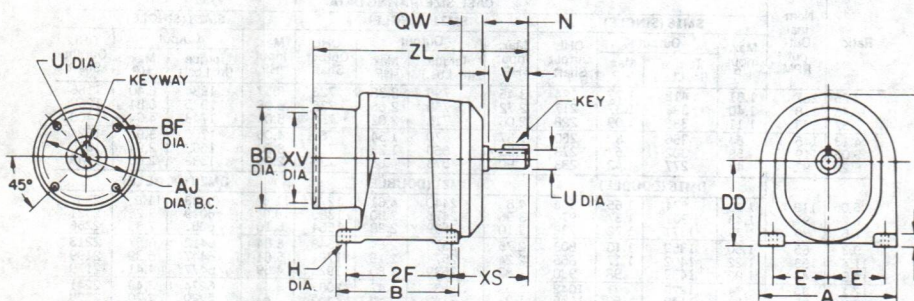


# Dimensions

## Integrally Cast Foot



Single Reduction



Double and Triple Reduction

References	Ratings p. G3-10 & G3-11	Inst./Maint. p. G3-7	Mtg. Pos. p. G3-8	How to Order p. G3-8
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See Drw'g. Above Labeled:	Reducer Size	A	B	XS	D	DD	E	2F	G	H (4) Holes	N	QW	Output Shaft		
													U ↓	V ↑	Key
Single Reduction	SM16A	7	5 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	3	4	5 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>3</sub>	1 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub> x 1 <sup>1</sup> / <sub>8</sub> x 1 <sup>1</sup> / <sub>4</sub>
	SM21A	7 <sup>7</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	5	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>3</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>2</sub> x 1 <sup>3</sup> / <sub>4</sub>
	SM28A	9 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	6	3 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	3	5 <sup>1</sup> / <sub>16</sub> x 1 <sup>1</sup> / <sub>2</sub> x 2
Double and Triple Reduction	DM16A	8	7	4 <sup>1</sup> / <sub>16</sub>	...	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	6	7	1 <sup>1</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>3</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>3</sup> / <sub>4</sub>
	DM21A	9	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	...	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7	7 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	3	5 <sup>1</sup> / <sub>16</sub> x 1 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>4</sub>
	DM28A	11 <sup>1</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	...	6 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	4 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	2	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>2</sub> x 3
	TM16A	8	9 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	...	4 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	8	8	1 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>3</sub>	1 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub> x 1 <sup>1</sup> / <sub>2</sub> x 2 <sup>1</sup> / <sub>4</sub>
	TM21A	11	12	7	...	6 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>	4 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	2	4 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>2</sub> x 3
	TM28A	13	15 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>8</sub>	...	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub> x 5 <sup>1</sup> / <sub>8</sub> x 5

# FOR MOTOR FRAMES:

See Drw'g. Above Labeled:	Reducer Size	48 Y/56C										140 TC/160 ATC									
		Wt. (Lbs.)	O ▲	AJ	BD	BF (4) Holes	Input Bore		XV ◆	ZL	Wt. (Lbs.)	O ▲	AJ	BD	BF (4) Holes	Input Bore		XV ★	ZL		
							U <sub>1</sub> *	Keyway I								U <sub>1</sub> *	Keyway I				
Single Reduction	SM16A	33	7 7/8	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	9 1/8	33	44	7 7/8	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	9 1/8	
	SM21A	44	9 1/8	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	11 1/16	44	79	9 1/8	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	11 1/16	
Double and Triple Reduction	DM16A	53	8 1/16	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	13 1/16	53	8 15/32	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	13 1/16		
	DM21A	77	9 1/8	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	14 1/4	77	9 1/8	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	14 1/4		
	DM28A	167	12 1/16	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	18 1/8	167	12 1/16	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	18 1/8		
	TM16A	78	8 1/16	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	17 1/16	78	8 15/32	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	17 1/16		
	TM21A	139	11 1/16	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	20 1/8	139	11 1/16	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	20 1/8		
	TM28A	288	14 1/16	5/8	6 23/32	1 3/32	5/8	3 1/16 x 3/32	4 1/2	26 1/8	288	14 1/16	5/8	6 23/32	1 3/32	7/8	3 1/16 x 3/32	4 1/2	26 1/8		

# FOR MOTOR FRAMES:

See Drw'g. Above Labeled:	Reducer Size	180 TC/180 ATCZ +										210 TC/210 ATCZ +									
		Wt. (Lbs.)	O ▲	AJ	BD	BF (4) Holes	Input Bore		XV ⚡	ZL	Wt. (Lbs.)	O ▲	AJ	BD	BF (4) Holes	Input Bore		XV ⚡	ZL		
							U <sub>1</sub> *	Keyway ★								U <sub>1</sub> *	Keyway ◆				
Single Reduction	SM21A SM28A	65 87	10 <sup>1</sup> / <sub>8</sub> 12 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>4</sub> 7 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>32</sub> 9 <sup>1</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub> 1 <sup>7</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>32</sub> 14 <sup>1</sup> / <sub>16</sub>	75 97	10 <sup>1</sup> / <sub>8</sub> 12 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>4</sub> 7 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>32</sub> 9 <sup>1</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub> 1 <sup>7</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>32</sub> 15 <sup>1</sup> / <sub>16</sub>		
Double Reduction	DM21A DM28A	95 155	10 <sup>7</sup> / <sub>64</sub> 12 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub> 7 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>32</sub> 9 <sup>1</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub> 1 <sup>7</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>16</sub> 20 <sup>1</sup> / <sub>32</sub>	105 165	10 <sup>7</sup> / <sub>64</sub> 12 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub> 7 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>32</sub> 9 <sup>1</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub> 1 <sup>7</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>16</sub> 20 <sup>1</sup> / <sub>32</sub>		
Triple Reduction	TM21A TM28A	157 305	11 <sup>1</sup> / <sub>16</sub> 14 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub> 7 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>32</sub> 9 <sup>1</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub> 1 <sup>7</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	22 <sup>1</sup> / <sub>64</sub> 28 <sup>1</sup> / <sub>32</sub>	167 305	11 <sup>1</sup> / <sub>16</sub> 14 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub> 7 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>32</sub> 9 <sup>1</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>32</sub> 1 <sup>7</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub> 1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub> 8 <sup>1</sup> / <sub>2</sub>	22 <sup>1</sup> / <sub>64</sub> 28 <sup>1</sup> / <sub>32</sub>		

▲ +.0000 - .0005  
★ +.001 + .002  
▲ At highest point.

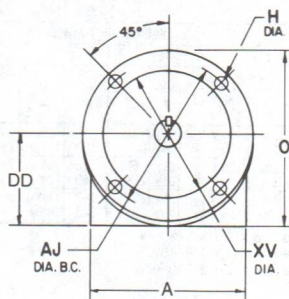
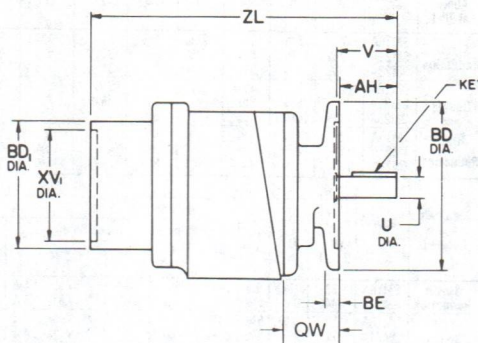
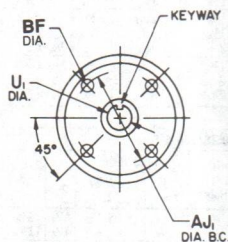
◆ Uses a 3<sup>1</sup>/<sub>16</sub> x 3<sup>1</sup>/<sub>16</sub> x 1<sup>3</sup>/<sub>8</sub> key.  
★ Uses a 1<sup>1</sup>/<sub>4</sub> x 1<sup>1</sup>/<sub>4</sub> x 1<sup>1</sup>/<sub>8</sub> key.  
◆ Uses a 3<sup>1</sup>/<sub>16</sub> x 3<sup>1</sup>/<sub>16</sub> x 1<sup>1</sup>/<sub>8</sub> key.

◆ +.001 - .003  
★ +.002 - .000  
◆ Usable shaft length.  
+ ATCZ Shaft extn. must match TC extn.



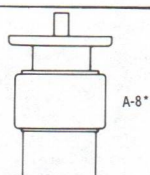
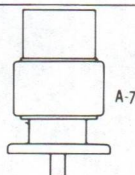
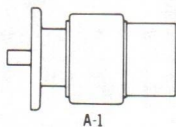
# Dimensions

## Flange Mount



## Mounting Positions

DOUBLE AND TRIPLE REDUCTION



\* Mounting Position not recommended.

References	Ratings p. G3-10 & G3-11	Inst./Maint. p. G3-7	How to Order p. G3-8
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See Drwg. Above Labeled:	Reducer Size	AJ	A	XV	AH	DD	BD	BE	H (4) Holes	Output Shaft			QW
										U ⬇	V ⬆	Key	
Double and Triple Reduction	DM16F	8	8	7/4	2 3/8	4 1/2	8 3/4	1/2	1 3/32	1 1/8	27/16	1/4 x 1/4 x 1 3/4	2 3/8
	DM21F	10	9	9	27/8	5 1/2	11	3/4	1 3/32	1 3/8	3	5/16 x 5/16 x 2 1/4	3 1/2
	DM28F	12 1/2	11 3/8	11 1/2	4	6 1/2	14	7/8	17/32	2	4 1/4	1/2 x 1/2 x 3	4 3/8
	TM16F	10	8	9 1/4	3 1/8	4 5/8	11	3/4	1 3/32	1 3/8	3 1/4	5/16 x 5/16 x 2 1/4	4 1/8
	TM21F	12 1/2	11	11	4 1/4	6 5/8	14	7/8	17/32	2	4 9/16	1/2 x 1/2 x 3	4 3/4

# FOR MOTOR FRAMES:

See Drwg. Above Labeled:	Reducer Size	48 Y/56C										140 TC/160 ATC									
		Wt. (Lbs.)	O ▲	AJ <sub>1</sub>	BD <sub>1</sub>	BF (4) Holes	Input Bore		XV <sub>1</sub> ◆	ZL	Wt. (Lbs.)	O ▲	AJ <sub>1</sub>	BD <sub>1</sub>	BF (4) Holes	Input Bore		XV <sub>1</sub> ◆	ZL		
							U <sub>1</sub> *	Keyway								U <sub>1</sub> *	Keyway				
Double and Triple Reduction	DM16F	56	8 7/8	5 7/8	6 23/32	1 3/32	5/8	3/16 x 3/32	4 1/2	14 11/32	56	8 7/8	5 7/8	6 23/32	1 3/32	7/8	3/16 x 3/32	4 1/2	14 11/32		
	DM21F	78	11	5 7/8	6 23/32	1 3/32	5/8	3/16 x 3/32	4 1/2	16 9/16	78	11	5 7/8	6 23/32	1 3/32	7/8	3/16 x 3/32	4 1/2	16 9/16		
	DM28F	168	13 1/2	5 7/8	6 23/32	1 3/32	5/8	3/16 x 3/32	4 1/2	21 3/16	168	13 1/2	5 7/8	6 23/32	1 3/32	7/8	3/16 x 3/32	4 1/2	21 3/16		
	TM16F	104	10 1/8	5 7/8	6 23/32	1 3/32	5/8	3/16 x 3/32	4 1/2	19 19/32	104	10 1/8	5 7/8	6 23/32	1 3/32	7/8	3/16 x 3/32	4 1/2	19 19/32		
	TM21F	151	13 3/8	5 7/8	6 23/32	1 3/32	5/8	3/16 x 3/32	4 1/2	22 19/16	151	13 3/8	5 7/8	6 23/32	1 3/32	7/8	3/16 x 3/32	4 1/2	22 19/16		

# FOR MOTOR FRAMES:

See Drwg. Above Labeled:	Reducer Size	180 TC/180 ATCZ +														210 TC/210 ATCZ +													
		Wt. (Lbs.)	O ▲	AJ <sub>1</sub>	BD <sub>1</sub>	BF (4) Holes	Input Bore		XV <sub>1</sub> ⬇	ZL	Wt. (Lbs.)	O ▲	AJ <sub>1</sub>	BD <sub>1</sub>	BF (4) Holes	Input Bore		XV <sub>1</sub> ⬇	ZL										
							U <sub>1</sub> *	Keyway ⬇								U <sub>1</sub> *	Keyway ⬇												
Dbl. and Triple Reduction	DM21F	95	11	7 1/4	9 7/32	17/32	1 1/8	1/4 x 1/8	8 1/2	18 7/32	105	11	7 1/4	9 7/32	17/32	1 1/8	5/16 x 5/32	8 1/2	18 7/32										
	DM28F	155	13 1/8	7 1/4	9 7/32	17/32	1 1/8	1/4 x 1/8	8 1/2	22 19/16	165	13 1/2	7 1/4	9 7/32	17/32	1 1/8	5/16 x 5/32	8 1/2	23 1/16										
	TM21F	157	13 3/8	7 1/4	9 7/32	17/32	1 1/8	1/4 x 1/8	8 1/2	24 19/32	167	13 3/8	7 1/4	9 7/32	17/32	1 1/8	5/16 x 5/32	8 1/2	25 7/32										

◆ +.0000 - .0005

\* +.001 +.002

▲ At highest point.

⬆ Uses a 3/16 x 3/16 x 1 1/8 key.

★ Uses a 1/4 x 1/4 x 1 1/8 key.

⬆ Uses a 5/16 x 5/16 x 1 1/8 key.

◆ +.001 +.003

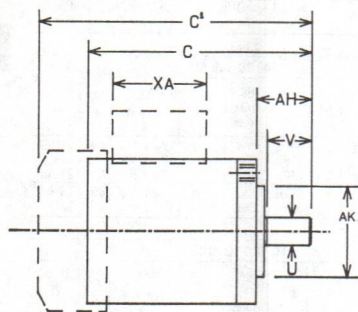
⬆ +.002 - .000

⬆ Usable shaft length.

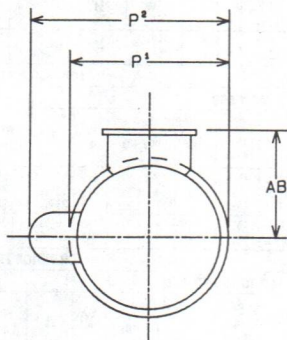
+ ATCZ Shaft extn. must match TC extn.



# Electric Motor Dimensions

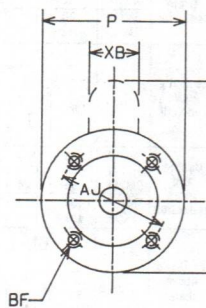


56C/140TC



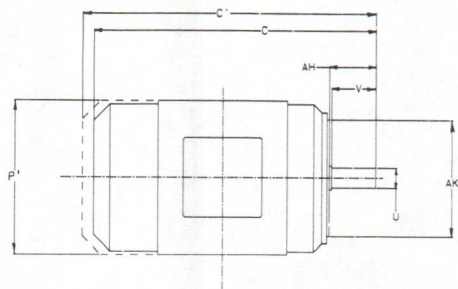
TEFC

56C/140TC

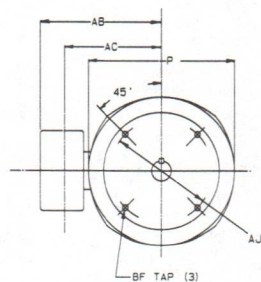


OPEN  
TENV

56C/140TC



182TC thru 365TC



182TC thru 365TC

## DIMENSIONS ARE LISTED IN INCHES

Frame	C	C <sup>1</sup>	V	P	P <sup>1</sup>	P <sup>2</sup>	AB	XA	XB	AJ	AK	BF	U	AH
AA56C/EA56C	9.50	—	1.88	5.62	—	7.50	—	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AB56C/EB56C	10.25	—	1.88	5.62	—	7.50	—	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AC56C/EC56C	10.50	10.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AD56C/ED56C	11.00	11.22	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AE56C/EE56C	11.50	11.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AF56C/EF56C	12.50	12.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
BA56C/FA56C	10.12	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BB56C/FB56C	11.12	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BC56C/FC56C	12.12	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BD56C/FD56C	13.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BE56C/FE56C	14.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BF56C/FC56C	15.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BK56C/FK56C	11.62	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FR56C	9.55	—	1.88	6.45	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
FB56C	—	11.48	1.88	6.45	7.28	8.72	4.69	4.26	1.91	5.88	4.50	⅜-16	.625	2.06
FC56C	—	12.48	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FK56C	—	11.98	1.88	6.45	7.28	8.72	4.69	4.26	1.91	5.88	4.50	⅜-16	.625	2.06
FJ56C	—	12.92	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FD56C	—	13.54	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FE56C	—	14.54	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
GA56C(1)	10.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GB56C(1)	11.50	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GC56C(1)	11.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GD56C(1)	12.25	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GE56C(1)	12.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GF56C(1)	13.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GH56C(1)	13.25	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
HP56C(2)	11.19	12.51	1.77	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HN56C(2)	11.69	13.01	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HR56C(2)	12.31	13.63	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HM56C(2)	13.06	14.38	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HG56C(2)	13.94	15.26	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HU56C(2)	14.81	16.13	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HJ56C(2)	15.31	16.63	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
FB140TC(3)	—	11.54	2.25	6.45	7.28	8.72	—	4.26	1.91	5.88	4.50	⅜-16	.875	2.12
FC140TC(3)	—	12.54	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
FB140TC(30)	—	12.04	2.25	6.45	7.28	8.72	—	4.26	1.91	5.88	4.50	⅜-16	.875	2.12
FJ140TC(3)	—	12.98	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
FD140TC(3)	—	13.60	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
FE140TC(3)	—	14.60	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
143TC	12.62	13.81	2.25	6.45	7.28	—	4.70	—	—	5.88	4.50	⅜-16	.875	2.12
145TC	13.50	14.81	2.25	6.45	7.28	—	4.70	—	—	5.88	4.50	⅜-16	.875	2.12

## C-FACE BRAKE MOTOR DIMENSIONS

FA56C(4)	14.95	—	1.88	6.45	—	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FB56C(4)	15.95	16.88	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FK56C(4)	16.45	17.38	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FC56C(4)	16.95	17.88	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FJ56C(4)	17.39	18.32	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FD56C(4)	18.02	18.94	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FE56C(4)	19.02	19.94	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06

### NOTES:

Dimensions are for reference only—for detailed dimensions, contact Reliance.

- Explosion proof 56C face 5.62" body motors have ⅜"-14 NPT female lead opening parallel to shaft in front endshield.
- Explosion proof 56C face 6.45" body motors have ⅜"-14 NPT male lead nipple perpendicular to shaft in front endshield.
- 56C/140 TEFC C-face motors have top mounted F<sub>1</sub> F<sub>2</sub> conduit box dimensioned accordingly.
- Brakemotor C Dimension includes Brake assembled to drip-proof or TEFC Motor.



# C-Face Reducer Pricing

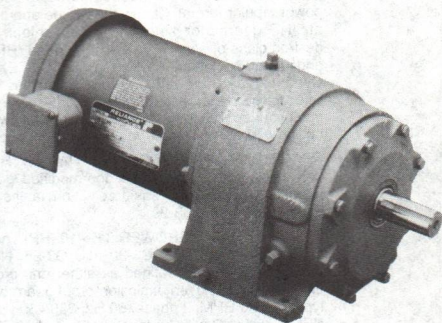
DISCOUNT—D-46c

LIST PRICE BY FRAME SIZE		CASE SIZE	EASY-CLEAN AND XT ADDER	MOBIL SHC629 OR USDA H1 FOOD GRADE LUBRICANT ADDER
56/140	180/210/250			
\$552 N/A	N/A	SM 16A SM 16F	\$57	\$10
1045 N/A	\$1175 N/A	SM 21A SM 21F	72	
N/A	1445 N/A	SM 28A SM 28F	77	
905 1078	N/A	DM 16A DM 16F	64	
1315 1601	1445 1735	DM 21A DM 21F	72	20
2113 2415	2243 2545	DM 28A DM 28F	77	50
1428 1718	N/A	TM 16A TM 16F	72	20
2303 2839	2433 2969	TM 21A TM 21F	77	50
3498 N/A	3628 N/A	TM 28A TM 28F	95	80

MULTIPLIER \_\_\_\_\_

# Master XL Parallel Gearmotors

MASTER XL Parallel Gearmotors are our most efficient, dependable and economical drive package. They are available in single, double and triple reduction ratios from 2.25:1 to 29.7:1. Horsepower capacities range from fractional to 10 HP. Parallel Gearmotors come in two constructions: integral cast foot (as shown) and a flanged output.



## NOMENCLATURE

In addition to HP and output speed, MASTER Parallel Gearmotors are identified by a series of numbers and letters as follows:

### MOTOR FRAME

Motor Frames 56 through 215T are preselected in selection tables.

### TYPE OF GEAR TRAIN

S—Single stage parallel gearing  
D—Double stage parallel gearing—T—Triple stage parallel gearing

### TYPE OF GEAR UNIT

G—Gear motor  
M—C-face construction

### GEAR UNIT SIZE

16- 2" center distance 1st stage  
21- 2½" center distance 1st stage  
28- 3½" center distance 1st stage

### GEAR UNIT MOUNTING

A—Integrally cast foot  
F—Footless Flanged Gearcase

### AGMA CLASS

—No suffix for integral HP Class I or Fractional HP  
2—Class II 3—Class III

143 D G 21 A 2



## HOW TO SELECT

Selection is made easy with our individual horsepower tabular format. Simply turn to the appropriate HP gearmotor selection table, select the desired class of service (I, II or III), speed (RPM) and motor enclosure (protected, TEFC, TEXP). Overhung load and output torque capacities are listed for your reference, be sure to verify these will meet your application requirements. The following outline will help you locate your horsepower needs.

**FRACTIONAL HORSEPOWER** ( $\frac{1}{2}$ — $\frac{3}{4}$  HP), polyphase and single-phase non-modified gearmotors available from basic selection tables on pages G3-24 thru G3-29.

**INTEGRAL HORSEPOWER** (1—10 HP), non-modified ratings pages G3-30 thru G3-55. Non-modified ratings are defined as either drip-proof, enclosed, or enclosed explosion-proof gearmotor, type P, 1750 RPM, 3 phase, 60 Hz, 230/460 volts, NEMA design B with horizontal output shaft. The non-modified gearmotor selection provides for the best quality and quickest delivery at the best value.

**UNLISTED RATINGS AND SPECIALS**, parallel gearmotor ratings and specifications listed in this section represent high demand products. This, however, doesn't represent our full range of product offerings. Please contact your nearest Reliance sales representative for:

1. Ratings above 10 HP.
2. Motor or gearcase modifications
3. Other mounting positions
4. D.C. gearmotors (FHP & IHP)
5. Special features, i.e., Easy Clean, Horizontal and Vertical Flange, etc.
6. Dimension sheet requirements
7. Clutch-brake gearmotors  $\frac{1}{3}$ - $7\frac{1}{2}$  HP

## HOW TO ORDER

**GEARMOTOR ORDERING INSTRUCTIONS.** In order to make the processing of your order as efficient as possible, the following information is necessary. Please double check your order for this information to avoid unnecessary delays.

1. Motor HP, type, frame, enclosure, voltage and frequency (Selection Tables)
2. Output RPM (Selection Tables)
3. AGMA class (Selection Tables) and application
4. Mounting position and gearcase assembly
5. Special motor and gear features

**APPLICATION CONSIDERATIONS**, correct application of a gearmotor requires consideration of the following factors:

1. The type of load, Class I, II, or III, reversing, amount of shock, etc. Three classes of loads are defined by AGMA. They are:

Class I - Steady loads not exceeding normal rating of the motor and 8 hours a day service. Moderate shock loads where service is intermittent. Equivalent service factor - 1.00.

Class II - Steady loads not exceeding the normal rating of the motor for 24 hours a day. Moderate repetitive shock loads for 8 hours a day. Equivalent service factor - 1.40.

Class III - Moderate repetitive shock loads for 24 hours a day. Heavy repetitive shock loads for 8 hours a day. Equivalent service factor - 2.00

2. Type of transmission, direct connected sprocket and chain, pinion and gear, V-belt or flat belt.
3. The point of application of the load if overhung.
4. Possibility of stalling.
5. Retarding torque of nonbrake or other brake.
6. Size of flywheel if used or  $WK^2$  or inertia effect of the load.
7. Surrounding conditions, normal, dusty, outdoors, hazardous vapor, or dust moisture or acid or alkali fumes, or abnormal ambient temperatures.
8. Mounting: Floor, sidewall, ceiling, vertical or inclined.
9. Electrical characteristics of the motor.
10. Complete duty cycle.
11. Horsepower or torque required.
12. Output shaft RPM.

# Shipping Weights and Mounting Positions

## SHIPPING WEIGHTS (APPROXIMATE)—TYPE P (1)

HP	A-C Gearmotors						
1/3		56SG16A 50	56DG16A 69	56DG16A 86	56TG16A 102	56TG16A 106	
1/2	56SG16A 47	56DG16A 74	56TG16A 106	56TG21A 184			
3/4	56SG16A 51	56DG16A 77	56TG16A 111	56TG21A 191			
1	56SG16A 48	145SG21A 84	56DG16A 79	56DG21A 104	145DG21A 110	56TG16A 133	56TG21A 181
1-1/2	145SG21A 79	182SG21A 97	145DG21A 108	182DG21A 145	145TG21A 195	182TG21A 231	182TG28A 375
2	145SG21A 90	145DG21A 115	184DG21A 150	145TG21A 203	184TG28A 485		
3	182SG21A 135	182DG21A 160	182DG28A 300	182TG21A 230	182TG28A 420	213TG28A 471	
5	184SG21A 150	184SG28A 187	184DG21A 185	184DG28A 315	184TG21A 255	184TG28A 397	
7-1/2	213SG28A 231	213DG28A 350	213TG28A 476				
10	215SG28A 255	215DG28A 363		215TG28A 495			

(1) For Type CS add 5 lbs.

Weight Additions (Add to listings at left)	
Gear Case	Flange
D16	8
D21	10
D28	14
T16	10
T21	15

## MOUNTING POSITIONS

### Single Reduction



C-1



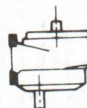
C-2



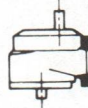
C-3



C-4



C-5



C-6\*

### Double/Triple Reduction



A-1



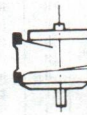
A-2



A-3



A-4



A-5



A-6\*

**NOTE:** A flooded input shaft seal should be avoided to insure optimum seal life.

Mounting positions A-6 and C-6 shown above are those which result in a flooded input seal.

■ Standard in stock.



# Classifications

Application		Hrs. Per Day	Application		Hrs. Per Day	Application		Hrs. Per Day
		8-10 24			8-10 24			8-10 24
<b>AGITATORS</b>			<b>CONVEYOR—HEAVY DUTY NOT UNIFORMLY FED (Cont'd)</b>			<b>GENERATORS— (Not Welding)</b>		
Pure Liquids	I		Screw	II	II		I	
Liquids and Solids	II	II	Shaker	III	III		III	
Liquids—Variable Density	II	II						
<b>BLOWERS</b>			<b>CRANES &amp; HOISTS</b>			<b>HAMMER MILLS</b>		
Centrifugal	I	II	Main Hoists			<b>LAUNDRY WASHERS</b>		
Lobe	I	II	Heavy Duty	III	III	Reversing		II
Vane	I	II	Medium Duty	II	II	<b>LAUNDRY TUMBLERS</b>		
			Reversing	II	II			II
<b>BREWING &amp; DISTILLING</b>			Skip Hoists	II	II	<b>LINE SHAFTS</b>		
Bottling Machinery	I	II	Travel Motion	II	II	Driving Processing		
Brew Kettles—Continuous			Trolley Motion	II	II	Equipment		II
Duty	—	II				Other Line Shafts		I
Cookers—Continuous Duty	—	II	<b>CRUSHERS</b>			<b>LUMBER INDUSTRY</b>		
Mash Tubs—Continuous Duty	—	II	Ore	III	III	Bark—Hydraulic		
Scale Hopper	—	II	Stone	III	III	Mechanical		II
Frequent Starts	II	II				Burner Conveyor		
<b>CAN FILLING MACHINES</b>			<b>DREDGES</b>			Chain Saw and Drag Saw		III
	I	II	Cable Reels	II	—	Chain Transfer		III
<b>CANE KNIVES</b>			Conveyors	II	II	Craneway Transfer		III
	II	II	Cutter Head Drives	III	III	De-Barking Drum		III
<b>CAR DUMPERS</b>			Jig Drives	III	III	Edger Feed		II
	III	—	Maneuvering Winches	II	—	Gang Feed		II
<b>CAR PULLERS</b>			Pumps	II	II	Green Chain		II
	II	—	Screen Drive	III	III	Line Rolls		III
<b>CLARIFIERS</b>			Stackers	II	II	Log Deck		III
	I	II	Utility Winches	II	—	Log-Haul—Incline		III
<b>CLASSIFIERS</b>						Log-Haul—Well Type		III
	II	II				Log Turning Device		III
<b>CLAY WORKING MACHINERY</b>			<b>ELEVATORS</b>			Main Log Conveyor		II
Brick Press	III	III	Bucket—Uniform Load	I	II	Off Bearing Rolls		II
Briquette Machine	III	III	Bucket—Heavy Load	II	II	Planer Feed Chains		II
Clay Working Machinery	II	II	Bucket—Continuous	I	II	Planer Floor Chains		II
Pug Mill	II	II	Centrifugal—Discharge	I	II	Planer Tilting Hoist		II
<b>COMPRESSORS</b>			Escalators	I	I	Re-Saw Merry-Go-Round		
Centrifugal	I	II	Freight	II	II	Conveyor		II
Lobe	II	II	Gravity Discharge	I	II	Roll Cases		III
*Reciprocating			Man Lifts	—	—	Slab Conveyor		III
Multi-Cylinder	II	II	†Passenger	‡	‡	Small Waste Conveyor—		
Single Cylinder	III	III	Service Hand Lift	III	—	belt		I
<b>CONVEYORS—UNIFORMLY LOAD OR FED</b>			<b>FANS</b>			Small Waste Conveyor—		
Apron	I	II	Centrifugal	I	II	chain		II
Assembly	I	II	Cooling Towers			Sorting Table		II
Belt	I	II	Induced Draft	II	II	Tipple Hoist Conveyor		II
Bucket	I	II	†Forced Draft	‡	‡	Tipple Hoist Drive		II
Chain	I	II	Induced Draft	II	II	Transfer Conveyor		II
Flight	I	II	*Large (Mine, etc.)	II	II	Transfer Rolls		II
Oven	I	II	Large Industrial	I	II	Tray Drive		II
Screw	I	II	Light (Small Diameter)	I	II	Trimmer Feed		II
<b>CONVEYOR—HEAVY DUTY NOT UNIFORMLY FED</b>			<b>FEEDERS</b>			Waste Conveyor		II
Apron	II	II	Apron	II	II			
Assembly	II	II	Belt	II	II	<b>MACHINE TOOLS</b>		
Belt	II	II	Disc	I	II	Bending Roll		—
Bucket	II	II	Reciprocating	III	III	Notching Press—Belt Driven		I
Chain	II	II	Screw	II	II	Plate Planer		III
Flight	II	II				Punch Press—Gear Driven		III
†Live Roll	‡	‡	<b>FOOD INDUSTRY</b>			Tapping Machines		—
Oven	II	II	Beet Slicer	II	II	Other Machine Tools		—
Reciprocating	III	III	Cereal Cooker	I	II	Main Drives		II
			Dough Mixer	II	II	Auxiliary Drives		I
			Meat Grinders	II	II			

(1) This list is not all-inclusive and each individual gearmotor application should be checked to determine if any unusual operation conditions will be encountered

\* Classes listed are minimum and normal conditions are assumed in view of varying load conditions. It is suggested that these applications be carefully reviewed before final selection is made.

‡ Check safety codes and consult Application Engineering.

Application	Hrs. Per Day		Application	Hrs. Per Day		Application	Hrs. Per Day	
	8-10	24		8-10	24		8-10	24
<b>ETAL MILLS</b>			<b>PAPER MILLS Cont'd.</b>			<b>SEWAGE DISPOSAL EQUIPMENT Cont'd.</b>		
Draw-Bench-Carriage	III	III	Cutters Platers	—	III	Collectors Circuline or		
Draw-Bench-Main Drive	III	III	Cylinders	—	II	Straightline	I	II
Forming Machines	III	III	*Dryers	—	II	Dewatering Screens	I	II
‡Pinch Dryer & Scrubber			Felt Stretcher	—	II	Grit Collectors	I	II
Rolls Reversing	‡	‡	Felt Whipper	—	III	Scum Breakers	II	II
*Slitters	—	—	Jordans	—	III	Slow or Rapid Mixers	II	II
Table Conveyors	—	—	Log Haul	—	II	Sludge Collectors	I	II
Non-Reversing	II	II	*Presses	—	II	Thickeners	II	II
*Reversing	—	—	Pulp Machines	—	II	Vacuum Filters	II	II
Wire Drawing &			Reel	—	II			
Flattening Machine	II	II	*Stock Chests	—	II	<b>SCREENS</b>		
Wire Winding Machine	—	II	*Suction Roll	—	II	Air Washing	I	II
<b>MILLS ROTARY TYPE</b>			Washers and Thickeners	—	II	Rotary—Stone or Gravel	II	II
*Ball	II	II	Winders	—	II	Traveling Water Intake	I	II
*Cement Kilns	—	II	<b>PRINTING PRESSES</b>	I	II	<b>SLAB PUSHERS</b>	II	II
Dryers & Coolers	II	II	<b>PULLERS</b>			<b>STEERING GEAR</b>	II	II
Kilns	II	II	Barge Haul	II	III	<b>STOKERS</b>	I	II
*Pebble	II	II	<b>PUMPS</b>			<b>TEXTILE INDUSTRY</b>		
Rod	III	III	Centrifugal	I	II	Batchers	II	II
Tumbling Barrels	III	III	*Proportioning	II	II	Calenders	II	II
<b>MIXERS</b>			Reciprocating			*Card Machines	II	II
Concrete—Continuous	II	II	Single Acting			Cloth Finishing Machines		
Concrete—Intermittent	I	II	3 or more Cylinders	II	II	(washers pads tenters		
Constant Density	I	II	Double Acting			dryers calenders, etc.)	II	II
Variable Density	II	II	2 or more Cylinders	II	II	Dry Cans	II	II
<b>OIL INDUSTRY</b>			Single Acting			Dyeing Machinery	II	II
Chillers	II	II	1 or 2 Cylinders	‡	‡	‡Knitting Machines	‡	‡
‡Oil Well Pumping	‡	‡	‡Double Acting	‡	‡	(Looms, etc.)		
Paraffin Filter Press	II	II	Single—Cylinder	I	II	Looms	II	II
Rotary Kilns	II	II	Rotary—Gear Type	I	II	Mangles	II	II
			Lobe Vane	I	II	Nappers	II	II
<b>PAPER MILLS</b>			<b>RUBBER INDUSTRY</b>			Range Drives	‡	‡
Agitators (Mixes)	II	II	Mixer	III	III	Soapers	II	II
Barker Auxiliaries Hydraulic	—	III	*Rubber Calender	II	II	Spinners	II	II
Barker Mechanical	—	III	*Rubber Mill (2 or more)	II	II	Tenter Frames	II	II
Barking Drum	II	II	*Sheeter	II	II	Winders (other than		
*Beater & Pulpers	—	II	Tire Building Machines	II	II	Batchers)	II	II
Bleacher	I	II	Tire & Tube Press Openers	I	I	Yard Preparatory Machines		
*Calenders	—	II	Tubers and Strainers	II	II	(Cards Spinners		
Calenders—Super	—	III				Slashers, etc.)	II	II
Converting Machines Excec.			<b>SEWAGE DISPOSAL EQUIPMENT</b>			<b>WINDLASS</b>	II	II
Cutters, Platers	—	II	Bar Screens					
Conveyors	—	II	Chemical Feeders	I	II			
*Coach	—	II						

) This list is not all-inclusive and each individual gearmotor application should be checked to determine if any unusual operation conditions will be encountered  
 \* Classes listed are minimum and normal conditions are assumed in view of varying load conditions. It is suggested that these applications be carefully reviewed before final selection is made.

‡ Check safety codes and consult Application Engineering.



# Selection—1/3 HP

## 1/3 HP—SINGLE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TENV Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TENV	TEXP (1) (6) (8)
230	728	88	FC56	DG16A	\$1000	\$1238
190	768	106	FC56	DG16A	1000	1238
155	812	130	FC56	DG16A	1000	1238
125	862	161	FC56	DG16A	1000	1238
100	916	201	FC56	DG16A	1000	1238
84	960	240	FC56	DG16A	1000	1238
68	1014	296	FC56	DG16A	1000	1238
56	1066	360	FC56	DG16A	1000	1238
45	1964	438	FC56	TG16A	1523	1761
37	2072	533	FC56	TG16A	1523	1761
30	2192	658	FC56	TG16A	1523	1761
25	2191	789	FC56	TG16A	1523	1761
20	2177	986	FC56	TG16A	1523	1761
16.5	2161	1196	FC56	TG16A	1523	1761
13.5	2138	1461	FC56	TG16A	1523	1761

**SINGLE PHASE • TYPE CS • 1750 RPM**  
60 Hz • 115/230 VOLTS

**THREE PHASE • TYPE P • 1750 RPM**  
60 Hz • 230/460 VOLTS

## 1/3 HP—THREE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TENV Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TENV (5)	TEXP (1) (6) (8)
230	728	88	FB56	DG16A	\$1000	\$1284
190	768	106	FB56	DG16A	1000	1284
155	812	130	FB56	DG16A	1000	1284
125	862	161	FB56	DG16A	1000	1284
100	916	201	FB56	DG16A	1000	1284
84	960	240	FB56	DG16A	1000	1284
68	1014	296	FB56	DG16A	1000	1284
56	1066	360	FB56	DG16A	1000	1284
45	1964	438	FB56	TG16A	1522	1807
37	2074	533	FB56	TG16A	1522	1807
30	2192	658	FB56	TG16A	1522	1807
25	2191	789	FB56	TG16A	1522	1807
20	2177	986	FB56	TG16A	1522	1807
16.5	2161	1196	FB56	TG16A	1522	1807
13.5	2138	1461	FB56	TG16A	1522	1807

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

(1) Frame Size Table

	Single-Phase	Three-Phase
TEXP	GE56	GA56

(3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.

(5) Suitable for 208V — See Stock Book for 575V availability.

(6) Includes UL required automatic reset thermal.

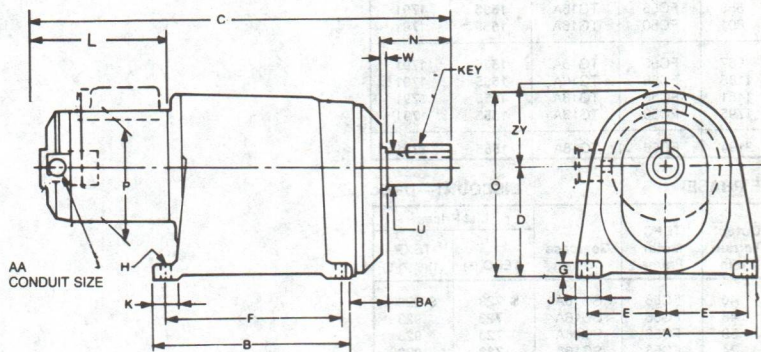
(8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-25 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst. Maint. p. G3-82
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Gearcase	A	B	D	E	F	G	H	J	K	N
DG16A	8	7	4½	3½	6	⅝	13/32	1¼	1¼	2½
TG16A	8	9¼	4⅝	3½	8	⅝	13/32	1⅝	1½	3⅝

Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
DG16A	8⅝	⅞	1⅝	1.1245	1.1250	¼	1¼
TG16A	8⅝	⅞	2¼	1.3745	1.3750	⅝	2¼

Motor Frame	L	P	C		AA	ZY
			D16	T16		
FB56	8⅞	6⅞	18⅞	22½	½	5⅞
FC56	9⅞	6⅞	19⅞	23½	½	5⅞
—	9⅞	6⅞	19⅞	23⅝	½	5⅞





# Selection—1/2 HP

## 1/2 HP—SINGLE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (1)(6)(7)(8)	TEXP
780	324	40	FC56	SG16A	\$ 747	\$ 883
640	323	48	FC56	SG16A	747	883
520	323	59	FC56	SG16A	747	883
420	321	74	FC56	SG16A	747	883
350	320	88	FC56	SG16A	747	883
280	319	110	FC56	SG16A	747	883
230	719	132	FC56	DG16A	1032	1268
190	757	159	FC56	DG16A	1032	1268
155	799	195	FC56	DG16A	1032	1268
125	845	242	FC56	DG16A	1032	1268
100	894	303	FC56	DG16A	1032	1268
84	935	360	FC56	DG16A	1032	1268
68	984	445	FC56	DG16A	1032	1268
56	1029	540	FC56	DG16A	1032	1268
45	1929	658	FC56	TG16A	1555	1791
37	2029	801	FC56	TG16A	1555	1791
30	2139	987	FC56	TG16A	1555	1791
25	2162	1185	FC56	TG16A	1555	1791
20	2136	1481	FC56	TG16A	1555	1791
16.5	2104	1795	FC56	TG16A	1555	1791
13.5	2059	2194	FC56	TG16A	1555	1791

SINGLE PHASE • TYPE CS • 1750 RPM  
60 Hz • 115/230 VOLTS

THREE PHASE • TYPE P • 1750 RPM  
60 Hz • 230/460 VOLTS

## 1/2 HP—THREE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (1)(6)(7)(8)
780	324	40	FC56	SG16A	\$ 723	\$ 923
640	323	48	FC56	SG16A	723	923
520	323	59	FC56	SG16A	723	923
420	321	74	FC56	SG16A	723	923
350	320	88	FC56	SG16A	723	923
280	319	110	FC56	SG16A	723	923
230	719	132	FC56	DG16A	1008	1308
190	757	159	FC56	DG16A	1008	1308
155	799	195	FC56	DG16A	1008	1308
125	845	242	FC56	DG16A	1008	1308
100	894	303	FC56	DG16A	1008	1308
84	935	360	FC56	DG16A	1008	1308
68	984	445	FC56	DG16A	1008	1308
56	1029	540	FC56	DG16A	1008	1308
45	1929	658	FC56	TG16A	1531	1831
37	2029	801	FC56	TG16A	1531	1831
30	2139	987	FC56	TG16A	1531	1831
25	2162	1185	FC56	TG16A	1531	1831
20	2136	1481	FC56	TG16A	1531	1831
16.5	2104	1795	FC56	TG16A	1531	1831
13.5	2059	2194	FC56	TG16A	1531	1831

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

### (1) Frame Size Table.

	Single-Phase	Three-Phase
TEXP	L56	K56

- (3) Overhung load in pounds (lbs.) at one shaft diameter from the shaft shoulder.  
 (5) Suitable for 208V—See Stock Book for 575V availability.  
 (6) Included UL required automatic reset thermal.  
 (7) Motor will be TENV.  
 (8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-27 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./ Maint. p. G3-82
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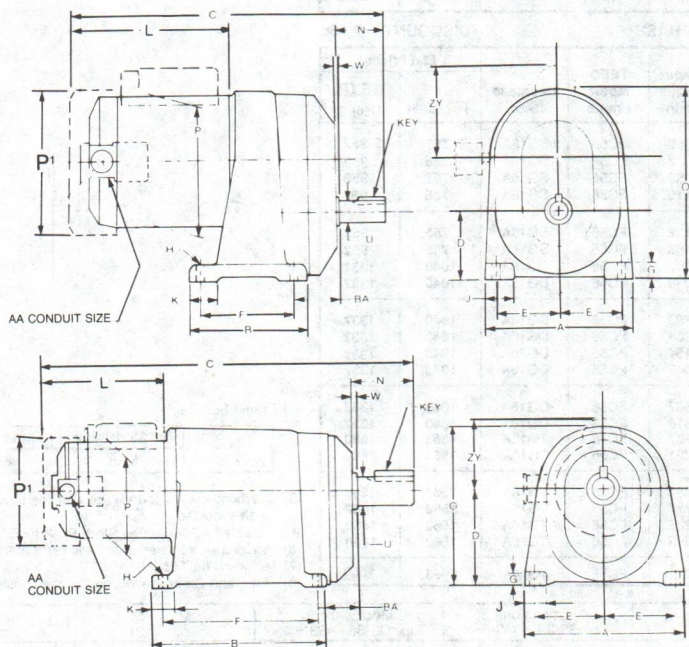
Gearcase	A	B	D	E	F	G	H	J	K	N
SG16A	7	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3	4	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>16</sub>

Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
SG16A	7 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	.7495	.7500	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>

Motor Frame				C						
TENV	TEFC	L	P	P <sup>1</sup>	S16	D16	T16	AA	ZY	
FB56	—	8 <sup>9</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>32</sub>	—	14 <sup>3</sup> / <sub>4</sub>	18 <sup>13</sup> / <sub>32</sub>	22 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>32</sub>	
FC56	—	9 <sup>9</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>32</sub>	—	15 <sup>3</sup> / <sub>4</sub>	19 <sup>13</sup> / <sub>32</sub>	23 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>32</sub>	
—	FC56	9 <sup>9</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>32</sub>	7 <sup>7</sup> / <sub>32</sub>	15 <sup>5</sup> / <sub>8</sub>	19 <sup>9</sup> / <sub>32</sub>	23 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>32</sub>	

Gearcase	A	B	D	E	F	G	H	J	K	N
DG16A	8	7	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	6	5 <sup>5</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>
TG16A	8	9 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	8	5 <sup>5</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>

Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
DG16A	8 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	1.1245	1.1250	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>
TG16A	8 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1.3745	1.3750	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>





# Selection— $\frac{3}{4}$ HP

## $\frac{3}{4}$ HP—SINGLE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC	TEXP (1)(6)(7)(8)
780	322	59	FC56	SG16A	\$ 784	\$ 929
640	321	72	FC56	SG16A	784	929
520	320	89	FC56	SG16A	784	929
420	318	110	FC56	SG16A	784	929
350	315	132	FC56	SG16A	784	929
280	311	165	FC56	SG16A	784	929
230	705	197	FC56	DG16A	1069	1314
190	740	239	FC56	DG16A	1069	1314
155	778	293	FC56	DG16A	1069	1314
125	819	363	FC56	DG16A	1069	1314
100	862	454	FC56	DG16A	1069	1314
84	898	540	FC56	DG16A	1069	1314
68	938	667	FC56	DG16A	1069	1314
56	973	810	FC56	DG16A	1069	1314
45	1875	987	FC56	TG16A	1592	1837
37	1964	1201	FC56	TG16A	1592	1837
30	2058	1481	FC56	TG16A	1592	1837
25	2106	1777	FC56	TG16A	1592	1837
20	2055	2222	FC56	TG16A	1592	1837
16.5	1993	2693	FC56	TG16A	1592	1837
13.5	1901	3291	FC56	TG16A	1592	1837

SINGLE PHASE • TYPE CS • 1750 RPM  
60 Hz • 115/230 VOLTS

THREE PHASE • TYPE P • 1750 RPM  
60 Hz • 230/460 VOLTS

## $\frac{3}{4}$ HP—THREE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (1) (6) (8)
780	322	59	FC56	SG16A	\$ 755	\$ 952
640	321	72	FC56	SG16A	755	952
520	320	89	FC56	SG16A	755	952
420	318	110	FC56	SG16A	755	952
350	315	132	FC56	SG16A	755	952
280	311	165	FC56	SG16A	755	952
230	705	197	FC56	DG16A	1040	1337
190	740	239	FC56	DG16A	1040	1337
155	778	293	FC56	DG16A	1040	1337
125	819	363	FC56	DG16A	1040	1337
100	862	454	FC56	DG16A	1040	1337
84	898	540	FC56	DG16A	1040	1337
68	938	667	FC56	DG16A	1040	1337
56	973	810	FC56	DG16A	1040	1337
45	1875	987	FC56	TG16A	1563	1860
37	1964	1201	FC56	TG16A	1563	1860
30	2058	1481	FC56	TG16A	1563	1860
25	2106	1777	FC56	TG16A	1563	1860
20	2055	2222	FC56	TG16A	1563	1860
16.5	1993	2693	FC56	TG16A	1563	1860
13.5	1901	3291	FC56	TG16A	1563	1860

(1) Frame Size Table

	Single-Phase	Three-Phase
TEXP	M56	K56

(3) Overhung load in pounds (lbs.), at one shaft diameter from shaft shoulder.

(5) Suitable for 208V—See Stock Book for 575V availability.

(6) Included UL required automatic reset thermal.

(7) Motor will be TENV.

(8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-29 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst. Maint. p. G3-82
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Gearcase	A	B	D	E	F	G	H	J	K	N
SG16A	7	$5\frac{1}{16}$	$2\frac{1}{2}$	3	4	$\frac{5}{8}$	$1\frac{1}{32}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{16}$

Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
SG16A	$7\frac{7}{8}$	$\frac{1}{16}$	$1\frac{3}{8}$	.7495	.7500	$\frac{3}{16}$	$1\frac{1}{4}$

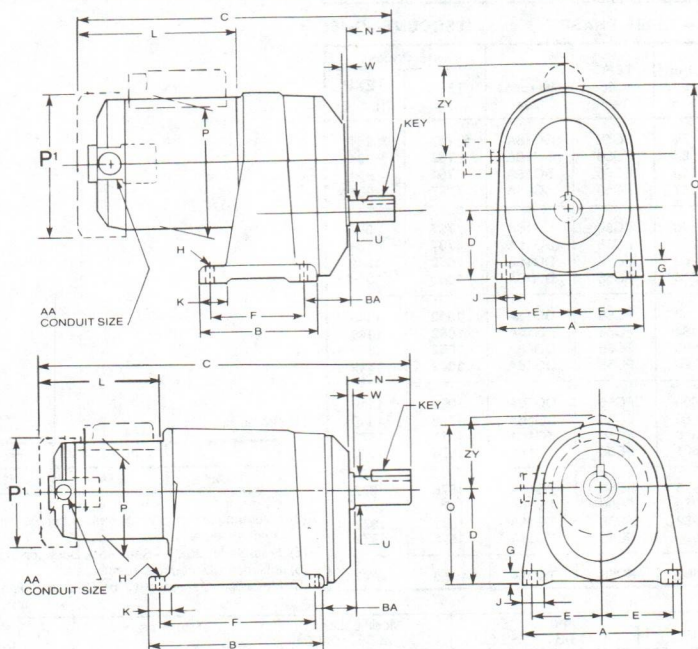
Dimension Sheet Reference: 600745-11

Motor Frame		L	P	P1	C			AA	ZY
TENV	TEFC				S16	D16	T16		
FC56	—	$9\frac{9}{16}$	$6\frac{15}{32}$	—	$15\frac{3}{4}$	$19\frac{13}{32}$	$23\frac{1}{2}$	$\frac{1}{2}$	$5\frac{1}{32}$
—	FC56	$9\frac{9}{16}$	$6\frac{15}{32}$	$7\frac{9}{32}$	$15\frac{5}{8}$	$19\frac{9}{32}$	$23\frac{3}{8}$	$\frac{1}{2}$	$5\frac{1}{32}$

Gearcase	A	B	D	E	F	G	H	J	K	N
DG16A	8	7	$4\frac{1}{2}$	$3\frac{1}{2}$	6	$\frac{5}{8}$	$1\frac{3}{32}$	$1\frac{1}{4}$	$1\frac{1}{4}$	$2\frac{1}{2}$
TG16A	8	$9\frac{1}{4}$	$4\frac{5}{8}$	$3\frac{1}{2}$	8	$\frac{5}{8}$	$1\frac{3}{32}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$3\frac{3}{8}$

Dimension Sheet Reference: 600746-4  
600747-3

Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
DG16A	$8\frac{5}{8}$	$\frac{1}{16}$	$1\frac{7}{8}$	1.1245	1.1250	$\frac{1}{4}$	$1\frac{3}{4}$
TG16A	$8\frac{5}{8}$	$\frac{1}{8}$	$2\frac{1}{4}$	1.3745	1.3750	$\frac{5}{16}$	$2\frac{1}{4}$





# Selection—1 HP

## 1 HP—CLASS I—SINGLE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC	TEXP (1) (6) (8)
780	320	79	FD56	SG16A	\$ 812	\$ 955
640	319	97	FD56	SG16A	812	955
520	316	119	FD56	SG16A	812	955
420	313	147	FD56	SG16A	812	955
350	309	176	FD56	SG16A	812	955
280	299	221	FD56	SG16A	812	955
230	691	263	FD56	SG16A	1097	1340
190	723	318	FD56	DG16A	1097	1340
155	758	390	FD56	DG16A	1097	1340
125	794	484	FD56	DG16A	1097	1340
100	830	605	FD56	DG16A	1097	1340
84	861	720	FD56	DG16A	1097	1340
68	892	890	FD56	DG16A	1097	1340
56	917	1080	FD56	DG16A	1097	1340
45	1822	1316	FD56	TG16A	1620	1863
37	1898	1601	FD56	TG16A	1620	1863
30	1977	1975	FD56	TG16A	1620	1863
25	2037	2370	FD56	TG16A	1620	1863
20	1953	2962	FD56	TG16A	1620	1863
16.5	1824	3590	FD56	TG16A	1620	1863
13.5	4810	4388	FD56	TG21A	2495	2738

SINGLE PHASE • TYPE CS • 1750 RPM  
60 Hz • 115/230 VOLTS

THREE PHASE • TYPE P • 1750 RPM  
60 Hz • 230/460 VOLTS

## 1 HP—CLASS I—THREE PHASE

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (1) (6) (8)
780	320	79	FC56	SG16A	\$ 767	\$ 964
640	319	97	FC56	SG16A	767	964
520	316	119	FC56	SG16A	767	964
420	313	147	FC56	SG16A	767	964
350	309	176	FC56	SG16A	767	964
280	299	221	FC56	SG16A	767	964
230	691	263	FC56	DG16A	1052	1349
190	723	318	FC56	DG16A	1052	1349
155	758	390	FC56	DG16A	1052	1349
125	794	484	FC56	DG16A	1052	1349
100	830	605	FC56	DG16A	1052	1349
84	861	720	FC56	DG16A	1052	1349
68	892	890	FC56	DG16A	1052	1349
56	917	1080	FC56	DG16A	1052	1349
45	1822	1316	FC56	TG16A	1575	1872
37	1898	1601	FC56	TG16A	1575	1872
30	1977	1975	FC56	TG16A	1575	1872
25	2037	2370	FC56	TG16A	1575	1872
20	1953	2962	FC56	TG16A	1575	1872
16.5	1824	3590	FC56	TG16A	1575	1872
13.5	4810	4388	FC56	TG21A	2450	2747

(1) Frame Size Table

	Single-Phase	Three-Phase
TEXP	P56	K56

- (3) Overhung load in pounds (lbs.), at one shaft diameter from shaft shoulder.  
 (5) Suitable for 208V—See Stock Book for 575V  
 (6) Includes UL required thermostats.  
 (8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-31 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./ Maint. p. G3-82
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Motor Frame		L	P	P <sup>1</sup>	C				AA	ZY
TENV	TEFC				S16	D16	T16	T21		
FB56	—	8 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	—	14 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	22 <sup>1</sup> / <sub>2</sub>	26	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>32</sub>
—	FC56	9 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>9</sup> / <sub>32</sub>	15 <sup>5</sup> / <sub>8</sub>	19 <sup>9</sup> / <sub>32</sub>	23 <sup>3</sup> / <sub>8</sub>	26 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>32</sub>
—	FD56	10 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>9</sup> / <sub>32</sub>	16 <sup>1</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>16</sub>	24 <sup>7</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>

Gearcase	A	B	D	E	F	G	H	J	K	N
DG16A	8	7	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	6	5 <sup>8</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>
TG16A	8	9 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	8	5 <sup>8</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>
TG21A	11	12	6 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	7 <sup>8</sup> / <sub>16</sub>	5 <sup>8</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>

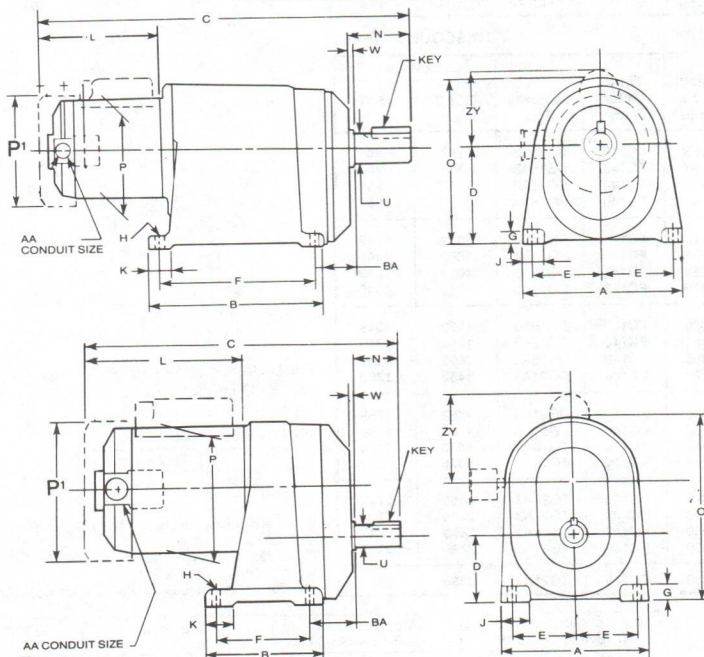
Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
DG16A	8 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	1.1245	1.1250	1/4	1 <sup>3</sup> / <sub>4</sub>
TG16A	8 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1.3745	1.3750	5/16	2 <sup>1</sup> / <sub>4</sub>
TG21A	11 <sup>1</sup> / <sub>16</sub>	3/16	2 <sup>1</sup> / <sub>16</sub>	1.9995	2.0000	1/2	3

Dimension Sheet Reference: 600746-4, 600747-3

Gearcase	A	B	D	E	F	G	H	J	K	N
SG16A	7	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3	4	5 <sup>8</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>16</sub>

Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
SG16A	7 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	.7495	.7500	3/16	1 <sup>1</sup> / <sub>4</sub>

Dimension Sheet Reference: 600745-11





# Selection—1 HP

## 1 HP—CLASS II

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (1) (6) (8)
780	318	79	FC140	SG16A2	\$ 767	\$ 964
640	314	97	FC140	SG16A2	767	964
520	310	119	FC140	SG16A2	767	964
420	302	147	FC140	SG16A2	767	964
350	292	176	FC140	SG16A2	767	964
280	818	221	FC140	SG21A2	1052	1349
230	809	263	FD140	DG16A2	1052	1349
190	697	318	FC140	DG16A2	1052	1349
155	725	390	FC140	DG16A2	1052	1349
125	755	484	FC140	DG16A2	1052	1349
100	780	605	FC140	DG16A2	1052	1349
84	800	720	FC140	DG16A2	1052	1349
68	1935	890	FC140	DG21A2	1462	1759
56	2010	1080	FC140	DG21A2	1462	1759
45	1727	1316	FC140	TG16A2	1575	1872
37	1785	1601	FC140	TG16A2	1575	1872
30	1837	1975	FC140	TG16A2	1575	1872
25	1880	2370	FC140	TG16A2	1575	1872
20	4975	2962	FC140	TG21A2	2450	2747
16.5	4905	3590	FC140	TG21A2	2450	2747
13.5	4810	4388	FC140	TG21A2	2450	2747

THREE PHASE • 60 Hz • 230/460 V  
1750 RPM • NORMAL TORQUE  
NEMA DESIGN B

## 1 HP—CLASS III

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	310	79	FC140	SG16A3	\$ 767	\$ 964
640	304	97	FC140	SG16A3	767	964
520	292	119	FC140	SG16A3	767	964
420	275	147	FC140	SG16A3	767	964
350	797	176	FC140	SG21A3	1052	1349
280	800	221	FC140	SG21A3	1052	1349
230	784	263	FD140	DG16A3	1052	1349
190	656	318	FC140	DG16A3	1052	1349
155	675	390	FC140	DG16A3	1052	1349
125	688	484	FC140	DG16A3	1052	1349
100	702	605	FC140	DG16A3	1052	1349
84	1758	720	FC140	DG21A3	1462	1759
68	1817	890	FC140	DG21A3	1462	1759
56	1987	1080	FC140	DG21A3	1462	1759
45	1601	1316	FC140	TG16A3	1575	1872
37	1628	1601	FC140	TG16A3	1575	1872
30	4689	1975	FC140	TG21A3	2450	2747
25	4891	2370	FC140	TG21A3	2450	2747
20	4802	2962	FC140	TG21A3	2450	2747
16.5	4714	3590	FC140	TG21A3	2450	2747
13.5	4540	4388	FC140	TG21A3	2450	2747

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

### (1) Frame Size Table

Three-Phase	
TEXP	K56

(3) Overhung load in pounds (lbs.), at one shaft diameter from shaft shoulder.

(5) Suitable for 208V—See Stock Book for 575V availability.

(6) Includes UL required thermostats.

(8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-33 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst. Maint. p. G3-82
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Gearcase	A	B	D	E	F	G	H	J	K	U		N
										Min.	Max.	
SG16A	7	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3	4	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	.7495	.7500	1 <sup>1</sup> / <sub>16</sub>
SG21A	7 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	5	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	1.1245	1.1250	2 <sup>1</sup> / <sub>16</sub>

Gearcase	O			W	BA	Key	
	140	180	210			Sq.	Lgth.
SG16A	7 <sup>7</sup> / <sub>8</sub>			1 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
SG21A	9 <sup>5</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>

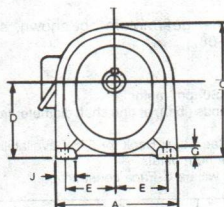
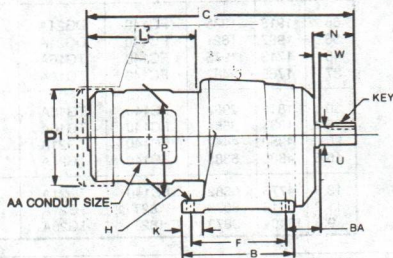
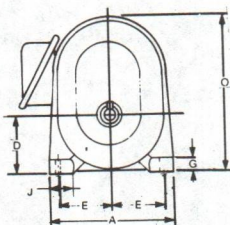
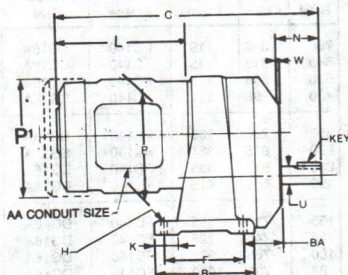
Dimension Sheet Reference: 600745

Motor Frame TEFC	L	P	P	C						AA
				S16	D16	S21	D21	T21	T28	
FC140T	9 <sup>7</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>32</sub>	7 <sup>7</sup> / <sub>32</sub>	15 <sup>5</sup> / <sub>8</sub>	19 <sup>9</sup> / <sub>32</sub>	17 <sup>7</sup> / <sub>16</sub>	21	26 <sup>7</sup> / <sub>8</sub>	32 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>

Gearcase	A	B	D	E	F	G	H	J	K	N
DG16A	8	7	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	6	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>
DG21A	9	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub>
TG21A	11	12	6 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>

Gearcase	O	W	BA	U		Key	
				Min.	Max.	Sq.	Lgth.
DG16A	8 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	1.1245	1.1250	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>
DG21A	9 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1.3745	1.3750	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>
TG21A	11 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	1.9995	2.0000	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>

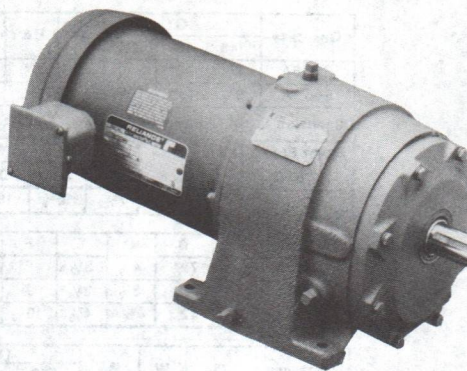
Dimension Sheet Reference: 600746 and 600747





# Selection—1½ HP

3-PHASE • 60 Hz • 230/460V • 1750 RPM • NORMAL TORQUE • NEMA DESIGN B



## 1½ HP—CLASS I

DISCOUNT—D

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEX (6) (8)
780	316	119	FC140	SG16A	\$ 790	\$ 993
640	313	145	FC140	SG16A	790	993
520	308	178	FC140	SG16A	790	993
420	298	221	FC140	SG16A	790	993
350	286	265	FC140	SG16A	790	993
280	815	331	FC140	SG21A	1075	1378
230	663	395	FC140	DG16A	1075	1378
190	689	478	FC140	DG16A	1075	1378
155	716	585	FC140	DG16A	1075	1378
125	743	726	FC140	DG16A	1075	1378
100	766	907	FC140	DG16A	1075	1378
84	786	1080	FC140	DG16A	1075	1378
68	1918	1335	FC140	DG21A	1485	1788
56	1987	1621	FC140	DG21A	1485	1788
45	1713	1975	FC140	TG16A	1598	1901
37	1765	2402	FC140	TG16A	1598	1901
30	1811	2962	FC140	TG16A	1598	1901
25	1837	3554	FC140	TG16A	1598	1901
20	4950	4442	FC140	TG21A	2473	2776
16.5	4880	5385	FC140	TG21A	2473	2776
13.5	4773	6582	FC140	TG21A	2473	2776
11.0	4618	8078	182T (2)	TG21A	2803	3433
9.0	10404	9873	182T (2)	TG28A	3998	4628

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

- (2) These ratings use 1150 rpm motor.  
 (3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.  
 (5) Suitable for 208V—See Stock Book for 575V availability.  
 (6) Includes UL required thermostats.  
 (8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-36—G3-37 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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**HP—CLASS II**
**DISCOUNT—D-46c**

Rated Output HP	OHL (3)	Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
					TEFC (5)	TEXP (6) (8)
0	308	119	FC140	SG16A2	\$ 790	\$ 993
0	302	145	FC140	SG16A2	790	993
0	288	178	FC140	SG16A2	790	993
0	270	221	FC140	SG16A2	790	993
50	793	265	FC140	SG21A2	1075	1378
50	797	331	FC140	SG21A2	1075	1378
50	630	395	FC140	DG16A2	1075	1378
50	650	478	FC140	DG16A2	1075	1378
55	667	585	FC140	DG16A2	1075	1378
55	682	726	FC140	DG16A2	1075	1378
50	1680	907	FC140	DG21A2	1485	1788
54	1740	1080	FC140	DG21A2	1485	1788
58	1790	1335	FC140	DG21A2	1485	1788
56	2005	1616	FC140	TG16A2	1598	1901
45	2018	1975	FC140	TG16A2	1598	1901
37	2032	2402	FC140	TG16A2	1598	1901
30	4665	2962	FC140	TG21A2	2473	2776
25	4862	3554	FC140	TG21A2	2473	2776
20	4785	4442	FC140	TG21A2	2473	2776
16.5	4670	5385	FC140	TG21A2	2473	2776
13.5	10440	6582	FC140	TG28A2	3668	3971
11.0	10321	8078	182T (2)	TG28A2	3998	4628
9.0	10160	9873	182T (2)	TG28A2	3998	4628

**1/2 HP—CLASS III**
**DISCOUNT—D-46c**

Rated Output HP	OHL (3)	Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
					TEFC (5)	TEXP (6) (8)
0	289	119	FC140	SG16A3	\$ 790	\$ 993
0	275	145	FC140	SG16A3	790	993
0	698	178	FC140	SG16A3	790	993
0	736	221	FC140	SG21A3	1075	1378
50	769	265	FC140	SG21A3	1075	1378
50	540	324	FC140	DG16A3	1075	1378
50	560	395	FC140	DG16A3	1075	1378
50	580	478	FC140	DG16A3	1075	1378
55	587	585	FC140	DG16A3	1075	1378
55	1510	726	FC140	DG21A3	1485	1788
50	1550	907	FC140	DG21A3	1485	1788
48	1600	1080	FC140	DG21A3	1598	1788
68	1797	1306	FC140	TG16A3	1598	1901
56	2823	1621	FC140	DG28A3	2283	2586
45	4103	1975	FC140	TG21A3	2473	2776
37	4285	2402	FC140	TG21A3	2473	2776
30	4475	2962	FC140	TG21A3	2473	2776
25	4634	3554	FC140	TG21A3	2473	2776
20	10400	4442	FC140	TG28A3	3668	3971
16.5	10353	5385	FC140	TG28A3	3668	3971
13.5	10204	6582	FC140	TG28A3	3668	3971
11.0	9994	8078	182T (2)	TG28A3	3998	4628
9.0	9707	9873	182T (2)	TG28A3	3998	4628

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

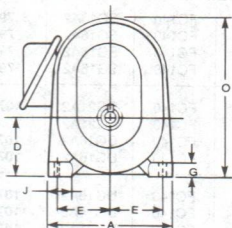
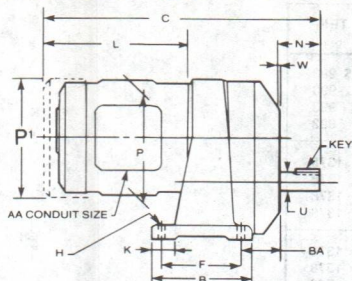
- (2) These ratings use 1150 rpm motor.
- (3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.
- (5) Suitable for 208V—See Stock Book for 575V availability.
- (6) Includes UL required thermostats.
- (8) Motor and Gearcase will be C-Face construction.



# Dimensions—1½ HP

## SINGLE, AND DOUBLE REDUCTION WITH TEFC A-C MOTORS

### SINGLE REDUCTION • SIZES 16, 21 • TYPE P & CS FRAMES 140 • POSITION C



Gearcase	A	B	D	E	F	G	H	J	K	U	
										Min.	Max.
SG16A	7	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3	4	5 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	.7495	.7500
SG21A	7 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	5	3 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	1.1245	1.1250

Gearcase	N	O	P	P1	W	BA	Key	
		140					Sq.	Lgth.
SG16A	11 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>32</sub>	7 <sup>9</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
SG21A	2 <sup>9</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>32</sub>	7 <sup>9</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>

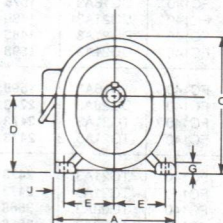
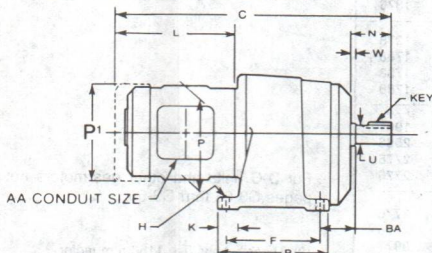
Dimension Sheet Reference: 600745.

### DOUBLE REDUCTION • SIZES 16, 21, 28 • TYPES P & CS, FRAMES 140, 180 • POSITION A

Gearcase	A	B	D	E	F	G	H	J	K
DG16A	8	7	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	6	5 <sup>5</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>
DG21A	9	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7	13 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>
DG28A	11 <sup>1</sup> / <sub>8</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	2

Gearcase	N	O	P		P1		W	BA	U		Key	
			140	180	140	180			Min.	Max.	Sq.	Lgth.
DG16A	2 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>32</sub>	—	7 <sup>9</sup> / <sub>32</sub>	—	1 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	1.1245	1.1250	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>
DG21A	3 <sup>1</sup> / <sub>8</sub>	9 <sup>7</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>9</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1.3745	1.3750	1 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>
DG28A	4 <sup>7</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>9</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	1.9995	2.0000	1 <sup>1</sup> / <sub>2</sub>	3

Dimension Sheet Reference: 600746

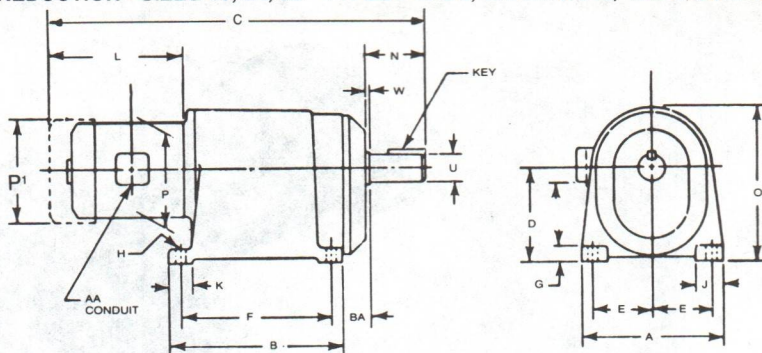


Dimensions for Estimating Purpose only. Consult our Reliance Sales Representative for Exact Dimensions.

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# TRIPLE REDUCTION WITH TEFC A-C MOTORS

TRIPLE REDUCTION • SIZES 16, 21, 28 • TYPES P & CS, FRAMES 140, 180 • POSITION A



Gearcase	A	B	D	E	F	G	H	J	K
TG16A	8	9 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	8	<sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>
TG21A	11	12	6 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	<sup>7</sup> / <sub>8</sub>	<sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>
TG28A	13	15 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>4</sub>	<sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	2	1 <sup>7</sup> / <sub>8</sub>

Gearcases	N	O	W	BA	U		Key	
					Min.	Max.	Sq.	Lgth.
TG16A	3 <sup>3</sup> / <sub>8</sub>	8 <sup>15</sup> / <sub>32</sub>	<sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1.3745	1.3750	<sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>
TG21A	4 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>16</sub>	<sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	1.9995	2.0000	<sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>
TG28A	6 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>16</sub>	<sup>5</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	2.7495	2.7500	<sup>5</sup> / <sub>8</sub>	4

Dimension Sheet Reference: 600747

Motor Frame TEFC	L	P	P1	C								AA
				S16	D16	T16	S21	D21	D28	T21	T28	
FC140T	9 <sup>7</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>32</sub>	7 <sup>9</sup> / <sub>32</sub>	15 <sup>5</sup> / <sub>8</sub>	19 <sup>9</sup> / <sub>32</sub>	23 <sup>3</sup> / <sub>8</sub>	17 <sup>9</sup> / <sub>16</sub>	21	24 <sup>7</sup> / <sub>8</sub>	26 <sup>7</sup> / <sub>8</sub>	32 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>
182T	12 <sup>15</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	—	—	—	—	—	—	30 <sup>5</sup> / <sub>8</sub>	36 <sup>1</sup> / <sub>32</sub>	<sup>3</sup> / <sub>4</sub>

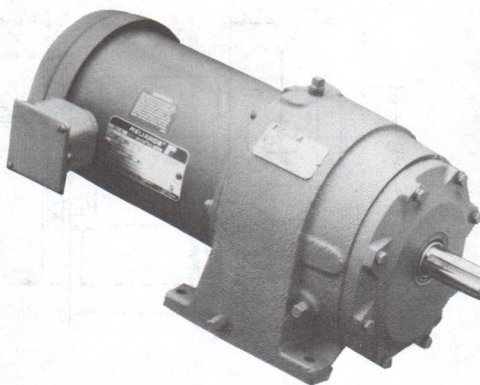
Dimensions for Estimating Purpose only. Consult our Reliance Sales Representative for Exact Dimensions.

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# Selection—2 HP

3-PHASE • 60 Hz • 230/460V • 1750 RPM • NORMAL TORQUE • NEMA DESIGN B



## 2 HP—CLASS I

## DISCOUNT—D-C

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	310	158	FD140	SG16A	\$ 814	\$1023
640	304	193	FD140	SG16A	814	1023
520	292	238	FD140	SG16A	814	1023
420	275	294	FD140	SG16A	814	1023
350	797	353	FD140	SG21A	1099	1408
280	800	441	FD140	SG21A	1099	1408
230	635	526	FD140	DG16A	1099	1408
190	656	637	FD140	DG16A	1099	1408
155	675	781	FD140	DG16A	1099	1408
125	691	968	FD140	DG16A	1099	1408
100	702	1210	FD140	DG16A	1099	1408
84	1758	1441	FD140	DG21A	1509	1818
68	1817	1779	FD140	DG21A	1509	1818
56	1863	2161	FD140	DG21A	1509	1818
45	1601	2633	FD140	TG16A	1622	1931
37	1628	3202	FD140	TG16A	1622	1931
30	4689	3949	FD140	TG21A	2497	2806
25	4891	4739	FD140	TG21A	2497	2806
20	4823	5924	FD140	TG21A	2497	2806
16.5	4714	7181	FD140	TG21A	2497	2806
13.5	4540	8776	FD140	TG21A	2497	2806
11.0	10353	10771	184T (2)	TG28A	4060	4690
9.0	10204	13164	184T (2)	TG28A	4060	4690

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

(2) These ratings use 1150 rpm motor.

(3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.

(5) Suitable for 208V—See Stock Book for 575V availability.

(6) Includes UL required thermostats.

(8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-40—G3-41 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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## HP—CLASS II

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	294	158	FD140	SG16A2	\$ 814	\$1023
640	282	193	FD140	SG16A2	814	1023
520	258	238	FD140	SG16A2	814	1023
420	741	294	FD140	SG21A2	1099	1408
350	774	353	FD140	SG21A2	1099	1408
280	575	432	FD140	DG16A2	1099	1408
230	592	526	FD140	DG16A2	1099	1408
190	603	637	FD140	DG16A2	1099	1408
155	610	781	FD140	DG16A2	1099	1408
125	610	968	FD140	DG16A2	1099	1408
100	1580	1210	FD140	DG21A2	1509	1818
84	1627	1441	FD140	DG21A2	1509	1818
68	2910	1779	FD140	DG28A2	2307	2616
56	2845	2161	FD140	DG28A2	2307	2616
45	4130	2633	FD140	TG21A2	2497	2806
37	4320	3202	FD140	TG21A2	2497	2806
30	4515	3949	FD140	TG21A2	2497	2806
25	4685	4739	FD140	TG21A2	2497	2806
20	4692	5924	FD140	TG28A2	3692	4001
16.5	10400	7181	FD140	TG28A2	3692	4001
13.5	10280	8776	FD140	TG28A2	3692	4001
11.0	10073	10771	184T (2)	TG28A2	4060	4690
9.0	9817	13164	184T (2)	TG28A2	4060	4690

## HP—CLASS III

## DISCOUNT—D-46c

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	613	158	FD140	SG21A3	\$1099	\$1408
640	645	193	FD140	SG21A3	1099	1408
520	679	238	FD140	SG21A3	1099	1408
420	713	294	FD140	SG21A3	1099	1408
350	724	350	FD140	DG16A3	1099	1408
280	1237	432	FD140	DG21A3	1509	1818
230	1293	526	FD140	DG21A3	1509	1818
190	1330	650	FD140	DG21A3	1509	1818
155	1365	781	FD140	DG21A3	1509	1818
125	1393	968	FD140	DG21A3	1509	1818
100	1407	1210	FD140	DG21A3	1509	1818
84	2865	1441	FD140	DG28A3	2307	2616
68	2785	1779	FD140	DG28A3	2307	2616
56	2675	2161	FD140	DG28A3	2307	2616
45	3960	2633	FD140	TG21A3	2497	2806
37	4110	3202	FD140	TG21A3	2497	2806
30	4260	3949	FD140	TG21A3	2497	2806
25	4375	4739	FD140	TG21A3	2497	2806
20	10120	5924	FD140	TG28A3	3692	4001
16.5	10120	7181	FD140	TG28A3	3692	4001
13.5	9900	8776	FD140	TG28A3	3692	4001
11.0	9548	10771	184T (2)	TG28A3	4060	4690

For D-C units and other garmotors not shown, see pages G3-66 thru G3-68.

(2) These ratings use 1150 rpm motor.

(3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.

(5) Suitable for 208V—See Stock Book for 575V availability.

(6) Includes UL required thermostats.

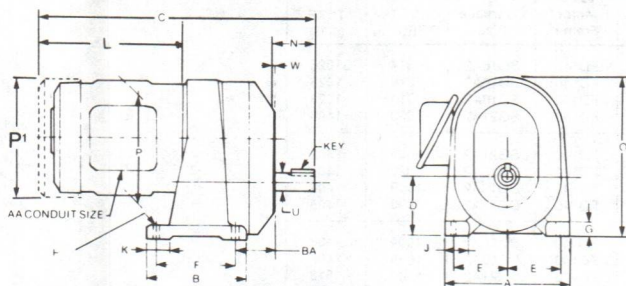
(8) Motor and Gearcase will be C-Face construction.



# Dimensions—2 HP

## SINGLE AND DOUBLE REDUCTION WITH TEFC A-C MOTORS

### SINGLE REDUCTION • SIZES 16, 21 • TYPES P & CS, FRAMES 140 • POSITION C



Gearcase	A	B	D	E	F	G	H	J	K
SG16A	7	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	3	4	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>
SG21A	7 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	5	3 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>16</sub>

Gearcase	N	O		P	P1	W	BA	U		Key	
		140						Min.	Max.	Sq.	Lgth.
SG16A	1 <sup>13</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>		6 <sup>15</sup> / <sub>32</sub>	7 <sup>9</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	.7495	.7500	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
SG21A	2 <sup>9</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>		6 <sup>15</sup> / <sub>32</sub>	7 <sup>9</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	1.1245	1.1250	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>

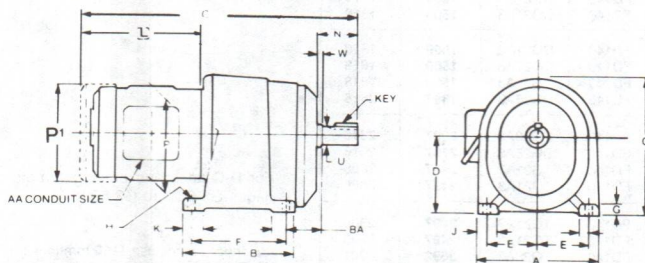
Dimension Sheet Reference: 600745

### DOUBLE REDUCTION • SIZES 16, 21, 28 • TYPES P & CS, FRAMES 140, 180 • POSITION A

Gearcase	A	B	D	E	F	G	H	J	K
DG16A	8	7	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	6	5 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>
DG21A	9	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7	1 <sup>3</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>
DG28A	11 <sup>5</sup> / <sub>8</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	2

Gearcase	N	O	P		P1		W	BA	U		Key	
			140	180	140	180			Min.	Max.	Sq.	Lgth.
DG16A	2 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>32</sub>	—	7 <sup>9</sup> / <sub>32</sub>	—	1 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	1.1245	1.1250	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>
DG21A	3 <sup>1</sup> / <sub>8</sub>	9 <sup>7</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>9</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1.3745	1.3750	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>
DG28A	4 <sup>7</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>9</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	1.9995	2.0000	1 <sup>1</sup> / <sub>2</sub>	3

Dimension Sheet Reference: 600746

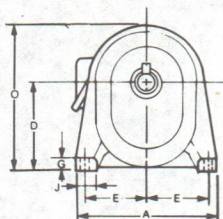
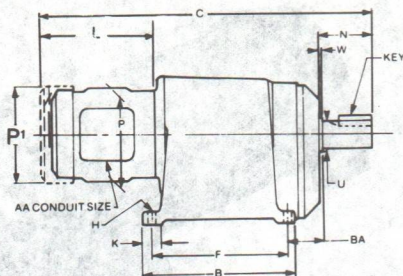


Dimensions for Estimating Purpose only. Consult your Reliance Sales Representative for Exact Dimensions.

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# TRIPLE REDUCTION WITH TEFC A-C MOTORS

TRIPLE REDUCTION • SIZES 21, 28 • TYPES P & CS, FRAMES 140, 180 • POSITION A



Gearcase	A	B	D	E	F	G	H	J	K
TG21A	11	12	6 <sup>5</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>
TG28A	13	15 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	2	17 <sup>1</sup> / <sub>8</sub>

Gearcase	N	O	W	BA	U		Key	
					Min.	Max.	Sq.	Lgth.
TG21A	4 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	1.9995	2.0000	1/2	2 <sup>3</sup> / <sub>4</sub>
TG28A	6 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2.7495	2.7500	3/8	4

Dimension Sheet Reference: 600747

Motor Frame	L	P	P <sup>1</sup>	C							AA
				S16	D16	S21	D21	T21	D28	T28	
TEFC											
FD140	10½	615/32	79/32	1611/16	2011/32	185/8	221/16	2715/16	2515/16	3311/16	½
184T	1315/32	9¼	9¼	—	—	—	—	—	—	3711/32	¾

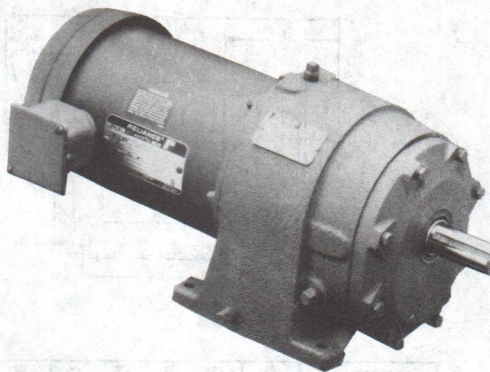
Dimensions for Estimating Purpose only. Consult your Reliance Sales Representative for Exact Dimensions.

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# Selection—3 HP

3-PHASE • 60 Hz • 230/460V • 1750 RPM • NORMAL TORQUE • NEMA DESIGN B



## 3 HP—CLASS I (4)

## DISCOUNT—D-46

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	628	238	182T	SG21A	\$1392	\$2077
640	662	290	182T	SG21A	1392	2077
520	698	356	182T	SG21A	1392	2077
420	736	441	182T	SG21A	1392	2077
350	769	529	182T	SG21A	1392	2347
280	1294	648	182T	DG21A	1662	2347
230	1356	789	182T	DG21A	1662	2347
190	1408	955	182T	DG21A	1662	2347
155	1460	1171	182T	DG21A	1662	2347
125	1510	1452	182T	DG21A	1662	2347
100	1552	1815	182T	DG21A	1662	2347
84	1600	2161	182T	DG21A	1662	2347
68	2892	2669	182T	DG28A	2460	3145
56	2822	3241	182T	DG28A	2460	3145
45	4103	3949	182T	TG21A	2650	3335
37	4285	4803	182T	TG21A	2650	3335
30	4475	5924	182T	TG21A	2650	3335
25	4634	7109	182T	TG21A	2650	3335
20	10355	8886	182T	TG28A	3845	4530
16.5	10353	10771	182T	TG28A	3845	4530
13.5	10204	13164	182T	TG28A	3845	4530
11.0	9994	16156	213T (2)	TG28A	4276	4808
9.0	9707	19746	213T (2)	TG28A	4276	4808

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

- (2) These ratings use 1150 rpm motor.  
 (3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.  
 (4) For unlisted ratings use DODGE APG Gearmotors.  
 (5) See Stock Book for 575V availability.  
 (6) Includes UL required thermostats.  
 (8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-44—G3-45 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# HP—CLASS II (4)

## DISCOUNT—D-46c

Rated Output HP	OHL (3)	Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
					TEFC (5)	TEXP (6) (8)
0	611	238	182T	SG21A2	\$1392	\$2077
0	642	290	182T	SG21A2	1392	2077
0	675	356	182T	SG21A2	1392	2077
0	708	441	182T	SG21A2	1392	2077
0	1177	518	182T	DG21A2	1662	2347
0	1227	648	182T	DG21A2	1662	2347
0	1275	789	182T	DG21A2	1662	2347
0	1315	955	182T	DG21A2	1662	2347
5	1345	1171	182T	DG21A2	1662	2347
5	1370	1452	182T	DG21A2	1662	2347
0	1380	1815	182T	DG21A2	1662	2347
4	2850	2161	182T	DG21A2	1662	2347
8	2760	2669	182T	DG28A2	2460	3145
6	2640	3241	182T	DG28A2	2460	3145
5	3930	3949	182T	TG21A2	2650	3335
7	4075	4803	182T	TG21A2	2650	3335
0	4205	5924	182T	TG21A2	2650	3335
5	4325	7109	182T	TG21A2	2650	3335
0	10080	8886	182T	TG28A2	3845	4530
16.5	10080	10771	182T	TG28A2	3845	4530
13.5	10270	13164	182T	TG28A2	3845	4530
11.0	9449	16156	213T (2)	TG28A2	4276	4808

# HP—CLASS III (4)

## DISCOUNT—D-46c

Rated Output HP	OHL (3)	Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
					TEFC (5)	TEXP (6) (8)
0	585	238	182T	SG21A3	\$1392	\$2077
0	613	290	182T	SG21A3	1392	2077
0	1097	356	182T	SG28A3	1662	2347
0	1155	441	182T	SG28A3	1662	2347
0	1102	518	182T	DG21A3	1662	2347
0	1132	648	182T	DG21A3	1662	2347
0	1170	789	182T	DG21A3	1662	2347
0	1180	955	182T	DG21A3	1662	2347
5	1180	1171	182T	DG21A3	1662	2347
5	2700	1452	182T	DG28A3	2460	3145
0	2770	1815	182T	DG28A3	2460	3145
4	2675	2161	182T	DG28A3	2460	3145
8	2510	2669	182T	DG28A3	2460	3145
6	7620	3241	182T	TG21A3	2650	3335
5	8060	3949	182T	TG21A3	2650	3335
7	8460	4803	182T	TG28A3	3845	4530
0	8860	5924	182T	TG28A3	3845	4530
5	9240	7109	182T	TG28A3	3845	4530
0	9680	8886	182T	TG28A3	3845	4530
16.5	9530	10771	182T	TG28A3	3845	4530

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

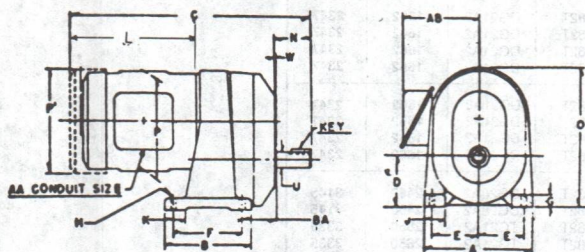
- (2) These ratings use 1150 rpm motor.
- (3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.
- (4) For unlisted ratings use DODGE APG Gearmotors
- (5) See Stock Book for 575V availability.
- (6) Includes UL required thermostats.
- (8) Motor and Gearcase will be C-Face construction.



# Dimensions—3 HP

## SINGLE REDUCTION WITH TEFC A-C MOTORS

### SINGLE REDUCTION • SIZES 21, 28 • TYPE P FRAMES 180 • POSITION C



Motor Frame	C		AA	AB	L	P	P <sup>1</sup>
	S21	S28					
182T	21 <sup>11</sup> / <sub>32</sub>	23	3/4	5 <sup>9</sup> / <sub>32</sub>	12 <sup>15</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>

Gearcase	A	B	D	E	F	G	H	J	K
SG21A	7 <sup>7</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	5	3/4	1 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>16</sub>
SG28A	9 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	7/8	2 <sup>1</sup> / <sub>32</sub>	2	1 <sup>9</sup> / <sub>16</sub>

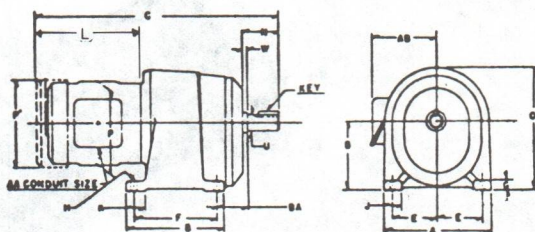
Gearcase	N	O		W	BA	U		Key	
		180	210			Min.	Max.	Sq.	Lgth.
SG21A	2 <sup>9</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>16</sub>	1/16	2 <sup>1</sup> / <sub>4</sub>	1.1245	1.1250	1/4	1 <sup>3</sup> / <sub>4</sub>
SG28A	3 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>	1/8	2 <sup>1</sup> / <sub>2</sub>	1.3745	1.3750	3/16	2

Dimension Sheet Reference: 600745

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# DOUBLE AND TRIPLE REDUCTION WITH TEFC A-C MOTORS

DOUBLE AND TRIPLE REDUCTION • SIZES 21, 28 • TYPE P FRAMES 180, 210 • POSITION A



Motor Frame	C			
	D21	D28	T21	T28
182T	24 <sup>3</sup> / <sub>4</sub>	28 <sup>19</sup> / <sub>32</sub>	30 <sup>5</sup> / <sub>8</sub>	36 <sup>11</sup> / <sub>32</sub>
213T				41 <sup>13</sup> / <sub>32</sub>

Motor Frame	P	P <sup>1</sup>	AA	AB	L
182T	9 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	5 <sup>9</sup> / <sub>32</sub>	12 <sup>15</sup> / <sub>32</sub>
213T	10 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	1	8 <sup>11</sup> / <sub>16</sub>	17 <sup>17</sup> / <sub>32</sub>

Modified 180 frames are longer than shown.

Gearcase	A	B	D	E	F	G	H	J	K
DG21A	9	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7	1 <sup>13</sup> / <sub>16</sub>	1 <sup>17</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>
DG28A	11 <sup>5</sup> / <sub>8</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	2
TG21A	11	12	6 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>
TG28A	13	15 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>16</sub>	2	1 <sup>7</sup> / <sub>8</sub>

Gearcase	N	O	W	BA	U		Key	
					Min.	Max.	Sq.	Lgth.
DG21A	3 <sup>1</sup> / <sub>8</sub>	9 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1.3745	1.3750	5 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>
DG28A	4 <sup>7</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	1.9995	2.0000	1 <sup>1</sup> / <sub>2</sub>	3
TG21A	4 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>11</sup> / <sub>16</sub>	1.9995	2.0000	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>
TG28A	6 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	2.7495	2.7500	5 <sup>5</sup> / <sub>8</sub>	4

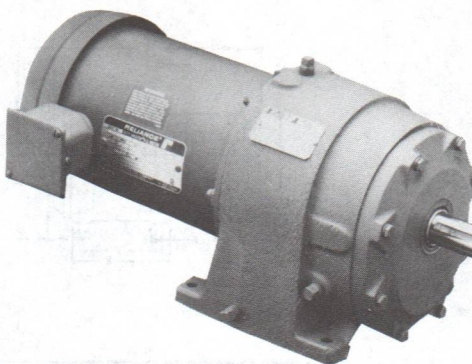
Dimension Sheet Reference: 600746 and 600747

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# Selection—5 HP

3-PHASE • 60 Hz • 230/460V • 1750 RPM • NORMAL TORQUE • NEMA DESIGN B



5 HP—CLASS I (4)

DISCOUNT—D-4

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	600	396	184T	SG21A	\$1445	\$2257
640	629	483	184T	SG21A	1445	2257
520	660	594	184T	SG21A	1445	2257
420	1176	735	184T	SG28A	1715	2527
350	1145	864	184T	DG21A	1715	2527
280	1185	1080	184T	DG21A	1715	2527
230*	1232	1315	184T	DG21A	1715	2527
190	1257	1592	184T	DG21A	1715	2527
155	1275	1952	184T	DG21A	1715	2527
125	1280	2420	184T	DG21A	1715	2527
100	2846	3025	184T	DG28A	2513	3325
84	2776	3601	184T	DG28A	2513	3325
68	2655	4449	184T	DG28A	2513	3325
56	2502	5402	184T	DG28A	2513	3325
45	3817	6582	184T	TG21A	2703	3515
37	3937	8005	184T	TG21A	2703	3515
30	4045	9873	184T	TG21A	2703	3515
25	9416	11848	184T	TG28A	3898	4710
20	9905	14810	184T	TG28A	3898	4710
16.5	9855	17951	184T	TG28A	3898	4710
13.5	9512	21940	184T	TG28A	3898	4710

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

- (3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.  
 (4) **For unlisted ratings use DODGE APG Gearmotors.**  
 (5) See Stock Book for 575V availability.  
 (6) Includes UL required thermostats.  
 (8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-48—G3-49 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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**HP—CLASS II (4)**
**DISCOUNT—D-46c**

RPM	Rated Output		TEFC Motor Frame	Gearcase Size	List Prices	
	OHL (3)	Output Torque Lb-in			TEFC (5)	TEXP (6) (8)
80	570	396	184T	SG21A2	<b>\$1445</b>	<b>\$2257</b>
140	598	483	184T	SG21A2	<b>1445</b>	<b>2257</b>
200	1080	594	184T	SG28A2	<b>1715</b>	<b>2527</b>
220	1135	735	184T	SG28A2	<b>1715</b>	<b>2527</b>
350	1060	864	184T	DG21A2	<b>1715</b>	<b>2527</b>
380	1077	1080	184T	DG21A2	<b>1715</b>	<b>2527</b>
430	1107	1315	184T	DG21A2	<b>1715</b>	<b>2527</b>
490	1107	1592	184T	DG21A2	<b>1715</b>	<b>2527</b>
55	2540	1952	184T	DG28A2	<b>2513</b>	<b>3325</b>
75	2655	2420	184T	DG28A2	<b>2513</b>	<b>3325</b>
100	2682	3025	184T	DG28A2	<b>2513</b>	<b>3325</b>
184	2560	3601	184T	DG28A2	<b>2513</b>	<b>3325</b>
268	4056	4356	184T	TG21A2	<b>2703</b>	<b>3515</b>
356	4398	5402	184T	TG21A2	<b>2703</b>	<b>3515</b>
455	7980	6582	184T	TG28A2	<b>3898</b>	<b>4710</b>
537	8710	8002	184T	TG28A2	<b>3898</b>	<b>4710</b>
730	8715	9873	184T	TG28A2	<b>3898</b>	<b>4710</b>
725	9050	11848	184T	TG28A2	<b>3898</b>	<b>4710</b>
720	9451	14810	184T	TG28A2	<b>3898</b>	<b>4710</b>

**HP—CLASS III (4)**
**DISCOUNT—D-46c**

RPM	Rated Output		TEFC Motor Frame	Gearcase Size	List Prices	
	OHL (3)	Output Torque Lb-in			TEFC (5)	TEXP (6) (8)
780	941	396	184T	SG28A3	<b>\$1715</b>	<b>\$2527</b>
840	985	483	184T	SG28A3	<b>1715</b>	<b>2527</b>
920	1032	594	184T	SG28A3	<b>1715</b>	<b>2527</b>
1020	1076	735	184T	SG28A3	<b>1715</b>	<b>2527</b>
1280	2125	1103	184T	DG28A3	<b>2513</b>	<b>3325</b>
1330	2232	1315	184T	DG28A3	<b>2513</b>	<b>3325</b>
1490	2326	1592	184T	DG28A3	<b>2513</b>	<b>3325</b>
155	2425	1952	184T	DG28A3	<b>2513</b>	<b>3325</b>
125	2523	2420	184T	DG28A3	<b>2513</b>	<b>3325</b>
100	2327	3025	184T	DG28A3	<b>2513</b>	<b>3325</b>
68	6979	4356	184T	TG28A3	<b>3989</b>	<b>4710</b>
56	7295	5402	184T	TG28A3	<b>3898</b>	<b>4710</b>
45	7648	6582	184T	TG28A3	<b>3898</b>	<b>4710</b>
37	8230	8002	184T	TG28A3	<b>3898</b>	<b>4710</b>
30	8267	9873	184T	TG28A3	<b>3898</b>	<b>4710</b>
25	8020	12101	184T	TG28A3	<b>3898</b>	<b>4710</b>

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

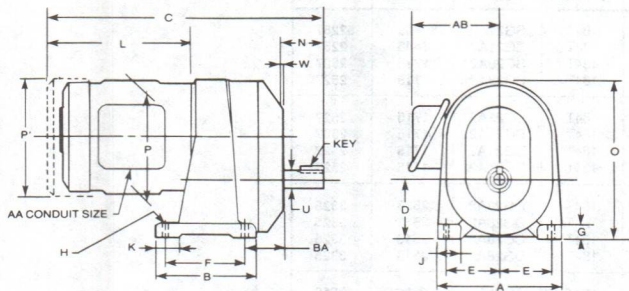
- (3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.  
 (4) **For unlisted ratings use DODGE APG Gearmotors.**  
 (5) See Stock Book for 575V availability.  
 (6) Includes UL required thermostats.  
 (8) Motor and Gearcase will be C-Face construction.



# Dimensions—5 HP

## SINGLE REDUCTION WITH TEFC A-C MOTORS

SINGLE REDUCTION • SIZES 21, 28 • TYPE P FRAME 180 • POSITION C



Motor Frame	C		AA	AB	L	P	P'
	S21	S28					
184T	22 <sup>11/22</sup>	24	3/4	5 <sup>9/32</sup>	13 <sup>15/32</sup>	9 <sup>1/4</sup>	9 <sup>1/4</sup>

Gearcase	A	B	D	E	F	G	H	J	K
SG21A	7 <sup>3/4</sup>	6 <sup>1/8</sup>	3 <sup>1/2</sup>	3 <sup>1/4</sup>	5	3/4	13 <sup>1/32</sup>	1 <sup>1/2</sup>	1 <sup>7/16</sup>
SG28A	9 <sup>1/2</sup>	8 <sup>3/4</sup>	4 <sup>1/2</sup>	3 <sup>15/16</sup>	7 <sup>1/2</sup>	7/8	21 <sup>1/32</sup>	2	1 <sup>5/8</sup>

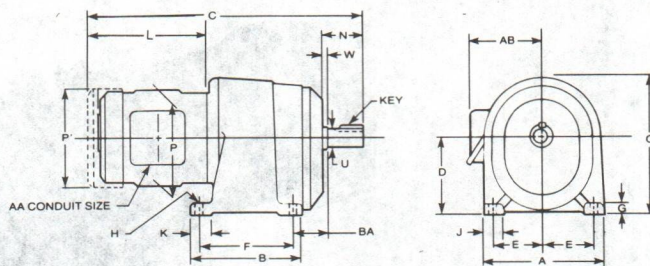
Dimension Sheet Reference: 600745

Gearcase	N	O	W	BA	U		Key	
					Min.	Max.	Sq.	Lgth.
SG21A	2 <sup>9/16</sup>	10 <sup>5/8</sup>	1/16	2 <sup>1/4</sup>	1.1245	1.1250	1/4	1 <sup>3/4</sup>
SG28A	3 <sup>1/8</sup>	12 <sup>1/2</sup>	1/8	2 <sup>1/2</sup>	1.3745	1.3750	5/16	2

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# DOUBLE AND TRIPLE REDUCTION WITH TEFC A-C MOTORS

DOUBLE AND TRIPLE REDUCTION • SIZES 21, 28 • TYPE P • FRAME 180 • POSITION A



Motor Frame	C			
	D21	D28	T21	T28
184T	25 $\frac{3}{4}$	29 $\frac{19}{32}$	31 $\frac{5}{8}$	37 $\frac{11}{32}$

Motor Frame	P	P <sup>1</sup>	AA	AB	YD	L
184T	9 $\frac{1}{4}$	9 $\frac{1}{4}$	$\frac{3}{4}$	5 $\frac{9}{32}$	2	13 $\frac{15}{32}$

Modified 180 frames are longer than shown.

Gearcase	A	B	D	E	F	G	H	J	K
DG21A	9	8 $\frac{1}{4}$	5 $\frac{1}{2}$	3 $\frac{3}{4}$	7	$\frac{13}{16}$	$\frac{17}{32}$	1 $\frac{1}{2}$	1 $\frac{5}{8}$
DG28A	11 $\frac{5}{8}$	10 $\frac{13}{16}$	6 $\frac{1}{2}$	4 $\frac{3}{4}$	9 $\frac{1}{4}$	$\frac{7}{8}$	$\frac{21}{32}$	2 $\frac{5}{16}$	2
TG21A	11	12	6 $\frac{5}{8}$	4 $\frac{7}{8}$	10 $\frac{5}{8}$	$\frac{7}{8}$	$\frac{5}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
TG28A	13	15 $\frac{1}{2}$	8 $\frac{1}{4}$	5 $\frac{1}{2}$	13 $\frac{3}{4}$	$\frac{7}{8}$	$\frac{13}{16}$	2	1 $\frac{7}{8}$

Dimension Sheet Reference: 600746 and 600747

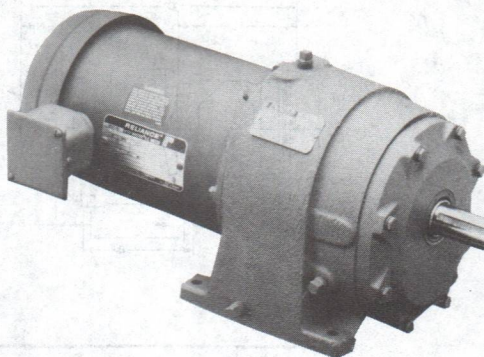
Gearcase	N	O	W	BA	U		Key	
					Min.	Max.	Sq.	Lgth.
DG21A	3 $\frac{1}{8}$	9 $\frac{7}{8}$	$\frac{1}{8}$	2 $\frac{1}{4}$	1.3745	1.3750	$\frac{5}{16}$	2 $\frac{1}{4}$
DG28A	4 $\frac{7}{16}$	12 $\frac{5}{16}$	$\frac{3}{16}$	2 $\frac{5}{8}$	1.9995	2.0000	$\frac{1}{2}$	3
TG21A	4 $\frac{1}{2}$	11 $\frac{1}{16}$	$\frac{3}{16}$	2 $\frac{11}{16}$	1.9995	2.0000	$\frac{1}{2}$	2 $\frac{1}{4}$
TG28A	6 $\frac{1}{2}$	14 $\frac{1}{16}$	$\frac{5}{16}$	3 $\frac{7}{16}$	2.7495	2.7500	$\frac{5}{8}$	4

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# Selection—7½ HP

3-PHASE • 60 Hz • 230/460V • 1750 RPM • NORMAL TORQUE • NEMA DESIGN B



7½ HP—CLASS I (4)

DISCOUNT—D-46

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	562	594	213T	SG21A	\$1565	\$2655
640	1020	724	213T	SG28A	1835	2925
520	1073	891	213T	SG28A	1835	2925
420	1126	1103	213T	SG28A	1835	2925
350	1172	1323	213T	SG28A	1835	2925
280	1052	1621	213T	DG21A	1835	2925
230	1075	1973	213T	DG21A	1835	2925
190	1066	2388	213T	DG21A	1835	2925
155	2516	2927	213T	DG28A	2633	3723
125	2636	3630	213T	DG28A	2633	3723
100	2636	4537	213T	DG28A	2633	3723
84	2502	5402	213T	DG28A	2633	3723
68	4056	6534	213T	TG21A	2823	3913
56	7496	7934	213T	TG28A	4018	5108
45	7898	9873	213T	TG28A	4018	5108
37	7567	12004	213T	TG28A	4018	5108
30	8642	14810	213T	TG28A	4018	5108
25	8966	17772	213T	TG28A	4018	5108

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

(3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.

(4) For unlisted ratings use DODGE APG Gearmotors.

(5) See Stock Book for 575V availability.

(6) Includes UL required thermostats.

(8) Motor and Gearcase will be C-Face construction.

References	Dimensions p. G3-52—G3-53 & G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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1/2 HP—CLASS II (4)

DISCOUNT—D-46c

Rated Output		Output Torque Lb-In	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	745	594	213T	SG28A2	<b>\$1835</b>	<b>\$2925</b>
640	745	724	213T	SG28A2	<b>1835</b>	<b>2925</b>
520	810	891	213T	SG28A2	<b>1835</b>	<b>2925</b>
420	840	1103	213T	SG28A2	<b>1835</b>	<b>2925</b>
350	2005	1296	213T	DG28A2	<b>2633</b>	<b>3723</b>
280	2112	1621	213T	DG28A2	<b>2633</b>	<b>3723</b>
230	2220	1973	213T	DG28A2	<b>2633</b>	<b>3723</b>
190	2310	2388	213T	DG28A2	<b>2633</b>	<b>3723</b>
155	2412	2927	213T	DG28A2	<b>2633</b>	<b>3723</b>
125	2500	3630	213T	DG28A2	<b>2633</b>	<b>3723</b>
84	6040	5288	213T	TG28A2	<b>4018</b>	<b>5108</b>
68	6940	6534	213T	TG28A2	<b>4018</b>	<b>5108</b>
56	7260	7934	213T	TG28A2	<b>4018</b>	<b>5108</b>
45	7600	9873	213T	TG28A2	<b>4018</b>	<b>5108</b>
37	7190	12004	213T	TG28A2	<b>4018</b>	<b>5108</b>
30	8200	14810	213T	TG28A2	<b>4018</b>	<b>5108</b>

1/2 HP—CLASS III (4)

DISCOUNT—D-46c

Rated Output		Output Torque Lb-In	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	690	594	213T	SG28A3	<b>\$1835</b>	<b>\$2925</b>
640	710	724	213T	SG28A3	<b>1835</b>	<b>2925</b>
350	1930	1296	213T	DG28A3	<b>2633</b>	<b>3723</b>
280	2020	1621	213T	DG28A3	<b>2633</b>	<b>3723</b>
230	2110	1973	213T	DG28A3	<b>2633</b>	<b>3723</b>
190	2178	2388	213T	DG28A3	<b>2633</b>	<b>3723</b>
155	2243	2927	213T	DG28A3	<b>2633</b>	<b>3723</b>
84	5800	5288	213T	TG28A3	<b>4018</b>	<b>5108</b>
68	6648	6534	213T	TG28A3	<b>4018</b>	<b>5108</b>
56	6894	7934	213T	TG28A3	<b>4018</b>	<b>5108</b>
45	7140	9873	213T	TG28A3	<b>4018</b>	<b>5108</b>

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

(3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.

(4) For unlisted ratings use DODGE APG Gearmotors.

(5) See Stock Book for 575V availability.

(6) Includes UL required thermostats.

(8) Motor and Gearcase will be C-Face construction.

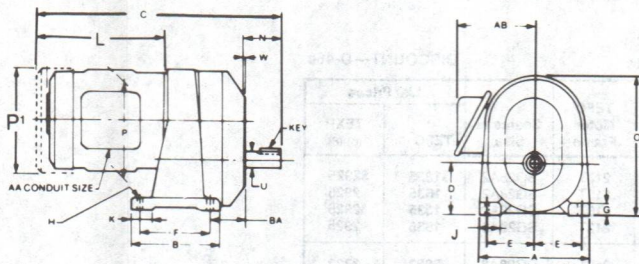


# Dimensions—7½ HP

## SINGLE REDUCTION WITH TEFC A-C MOTORS

SINGLE REDUCTION • SIZE 21, 28 • TYPE P FRAME 213 • POSITION C

SG28



Motor	C		P	P1	AA	AB	L
	S21	S28					
213T	26 <sup>13</sup> / <sub>32</sub>	28 <sup>1</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	1	8 <sup>1</sup> / <sub>16</sub>	17 <sup>17</sup> / <sub>32</sub>

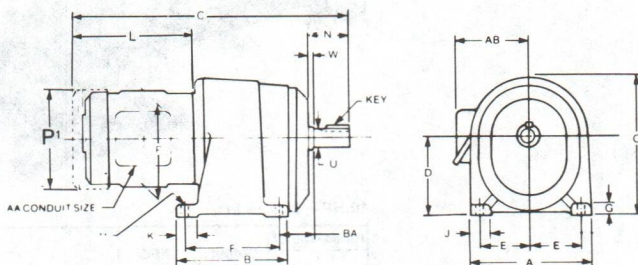
Gearcase	A	B	D	E	F	G	H	J	K	U	
										Min.	Max.
SG21A	7 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	5	3 <sup>4</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>16</sub>	1.1245	1.1250
SG28A	9 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>32</sub>	2	15 <sup>5</sup> / <sub>8</sub>	1.3745	1.3750

Gearcase	N	O	W	BA	Key	
					Sq.	Lgth.
SG21A	2 <sup>9</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>
SG28A	3 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	2

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# DOUBLE AND TRIPLE REDUCTION WITH TEFC A-C MOTORS

## DOUBLE AND TRIPLE REDUCTION • SIZE 28 • TYPE P FRAME 213 • POSITION A



Motor Frame	C		P	P1	AA	AB	L
	D28	T28					
213T	33 <sup>21</sup> / <sub>32</sub>	41 <sup>13</sup> / <sub>32</sub>	10 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	1	8 <sup>1</sup> / <sub>16</sub>	17 <sup>17</sup> / <sub>32</sub>

Gearcase	A	B	D	E	F	G	H	J	K
DG28A	11 <sup>5</sup> / <sub>8</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	2
TG28A	13	15 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	13 <sup>13</sup> / <sub>16</sub>	2	1 <sup>7</sup> / <sub>8</sub>

Gearcase	N	O	W	BA	U		Key	
					Min.	Max.	Sq.	Lgth.
DG28A	4 <sup>7</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	1.9995	2.0000	1/2	3
TG28A	6 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	2.7495	2.7500	5/8	4

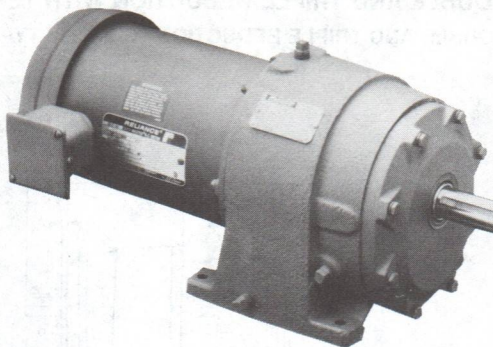
Dimension Sheet Reference: 600746 & 600747

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# Selection—10 HP

3-PHASE • 60 Hz • 230/460V • 1750 RPM  
NORMAL TORQUE • NEMA DESIGN B



10 HP—CLASS I (4)

DISCOUNT—D-46

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	893	792	215T	SG28A	<b>\$1944</b>	<b>\$3068</b>
640	928	965	215T	SG28A	<b>1944</b>	<b>3068</b>
520	1032	1188	215T	SG28A	<b>1944</b>	<b>3068</b>
420	1076	1471	215T	SG28A	<b>1944</b>	<b>3068</b>
350	2012	1728	215T	DG28A	<b>2742</b>	<b>3866</b>
280	2040	2161	215T	DG28A	<b>2742</b>	<b>3866</b>
230	2132	2630	215T	DG28A	<b>2742</b>	<b>3866</b>
190	2207	3184	215T	DG28A	<b>2742</b>	<b>3866</b>
155	2327	3903	215T	DG28A	<b>2742</b>	<b>3866</b>
125	2523	4840	215T	DG28A	<b>2742</b>	<b>3866</b>
100	2420	6050	215T	DG28A	<b>2742</b>	<b>3866</b>
84	6060	7050	215T	TG28A	<b>4127</b>	<b>5251</b>
68	6720	8712	215T	TG28A	<b>4127</b>	<b>5251</b>
56	6970	10578	215T	TG28A	<b>4127</b>	<b>5251</b>
45	7240	13164	215T	TG28A	<b>4127</b>	<b>5251</b>
37	7248	16008	215T	TG28A	<b>4127</b>	<b>5251</b>
30	8267	19746	215T	TG28A	<b>4127</b>	<b>5251</b>
25	8599	23697	215T	TG28A	<b>4127</b>	<b>5251</b>

10 HP—CLASS II (4)

DISCOUNT—D-46

Rated Output		Output Torque Lb-in	TEFC Motor Frame	Gearcase Size	List Prices	
RPM	OHL (3)				TEFC (5)	TEXP (6) (8)
780	700	792	215T	SG28A2	<b>\$1944</b>	<b>\$3068</b>
640	720	965	215T	SG28A2	<b>1944</b>	<b>3068</b>
350	1945	1728	215T	DG28A2	<b>2742</b>	<b>3866</b>
280	1690	2161	215T	DG28A2	<b>2742</b>	<b>3866</b>
230	1770	2630	215T	DG28A2	<b>2742</b>	<b>3866</b>
190	1810	3184	215T	DG28A2	<b>2742</b>	<b>3866</b>
155	1870	3903	215T	DG28A2	<b>2742</b>	<b>3866</b>
84	5850	7050	215T	TG28A2	<b>4127</b>	<b>5251</b>
68	5250	8712	215T	TG28A2	<b>4127</b>	<b>5251</b>
56	5400	10578	215T	TG28A2	<b>4127</b>	<b>5251</b>
45	5500	13164	215T	TG28A2	<b>4127</b>	<b>5251</b>

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

For Class III gearmotors contact Application Engineering—

Columbus, Indiana (812) 376-1100.

(3) Overhung load in pounds (lbs.), at one shaft diameter from the shaft shoulder.

(4) For unlisted ratings use DODGE APG Gearmotors.

(5) See Stock Book for 575V availability.

(6) Includes UL required thermostats.

(8) Motor and Gearcase will be C-Face construction.

# Dimensions—10 HP

## SINGLE, DOUBLE AND TRIPLE REDUCTION WITH TEFC A-C MOTORS

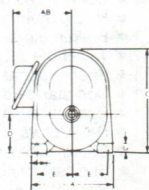
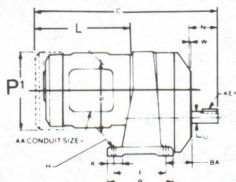
### SINGLE REDUCTION • SIZE 28 • TYPE P FRAME 215 • POSITION C

Motor Frame	C	AA	AB	P	P <sup>1</sup>	L
	528					
215T	28 <sup>1</sup> / <sub>16</sub>	1	8 <sup>1</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	17 <sup>17</sup> / <sub>32</sub>

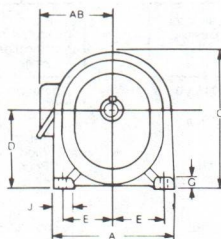
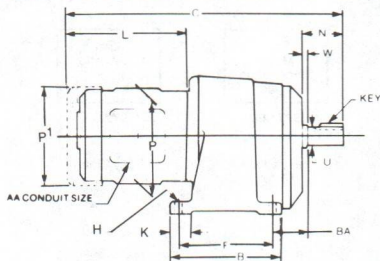
Gearcase	A	B	D	E	F	G	H	J	K	U	
										Min.	Max.
SG28A	9 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	2	1 <sup>5</sup> / <sub>8</sub>	1.3745	1.3750

Gearcase	N	O	W	BA	Key	
					Sq.	Lgth.
SG28A	3 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	<sup>5</sup> / <sub>16</sub>	2

Dimension Sheet Reference: 600745



### DOUBLE AND TRIPLE REDUCTION • SIZE 28 • TYPE P FRAME 215 • POSITION A



Motor Frame	C		P	P <sup>1</sup>	AA	AB	L
	D28	T28					
215T	33 <sup>21</sup> / <sub>32</sub>	41 <sup>13</sup> / <sub>32</sub>	10 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	1	8 <sup>1</sup> / <sub>16</sub>	17 <sup>17</sup> / <sub>32</sub>

Gearcase	A	B	D	E	F	G	H	J	K
DG28A	11 <sup>5</sup> / <sub>8</sub>	10 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	2
TG28A	13	15 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	2	1 <sup>7</sup> / <sub>8</sub>

Gearcase	N	O	W	BA	U		Key	
					Min.	Max.	Sq.	Lgth.
DG28A	4 <sup>7</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	<sup>3</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	1.9995	2.0000	<sup>1</sup> / <sub>2</sub>	3
TG28A	6 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>16</sub>	<sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	2.7495	2.7500	<sup>5</sup> / <sub>8</sub>	4

Dimension Sheet Reference: 600746 and 600747

Brakes specified for standard non-explosion proof motors only.

For D-C units and other gearmotors not shown, see pages G3-66 thru G3-68.

References	Dimensions p. G3-68	Modifications p. G3-56—G3-64	Mtg. Pos. p. G3-21	Inst./Maint. p. G3-82
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# Modifications

## General

The modifications that can be supplied are not limited to only those listed on the following pages, as these can be considered standard modifications.

Reliance can best serve its customers in the area of custom designed motors that can be manufactured on a quantity basis.

For the following gearmotor modifications contact Gear Products Application Engineering:

- Open drip-proof motors
- Hi Slip motors
- Brakemotors not listed
- 15 minute duty motors
- Special shafts and keyways
- Non-standard voltages
- Non-standard multi speed motors
- D-C Motors
- Energy efficient/High performance motors
- Special lubrication/Seals
- Special paint

MASTER Gearmotors are available with a wide variety of modifications—contact Application Engineering for any not listed.

For pricing A-C Gearmotors requiring special modifications, select the Gearmotor Basic List price from the Gearmotor selection page and add the Basic Motor Modification Charge from the table below; then add the cost of desired modifications.

### BASIC MOTOR MODIFICATION CHARGE

DISCOUNT—D-46c

Qty.	Add to Gearmotor Basic List Price		
	56	140	180 & Up
1-4	\$250		\$400
5-9	\$100		
10 & Up	No Charge		

### Pricing Example:

	<div>Gearmotor Basic List Price</div>	+	<div>Basic Motor Modification Price</div>	+	<div>Motor Modification Price</div>	+	<div>Gear Modification Price (If req'd)</div>	=	Total List
	\$1715.00		\$400.00		\$221.00		\$72.00		\$2408.00
Qty 2	184DG21A TEFC 5 hp 1750 rpm 125 rpm output	+	Basic Mod Price	+	Easy Clean Motor	+	Easy Clean Gear Case	=	Total List
	pg. G3-46		pg. G3-56		pg. G3-59		pg. G-59		

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100

# Modifications

## INSULATION

Normally totally enclosed A-C motors have Class B insulation.

Special environmental conditions may require the addition of a special insulation. Use the following modifications.

**DISCOUNT D-46c**

Condition*	Class*	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
Standard, High Ambient or Service Factor ■	B	Std.	Std.	Std.	Std.	Std.
	F	68	68	91	112	147
	H	88	364	1030	1157	1282
Acid, Alkali	BE	35	105	132	284	394
Abrasive	FE	100	143	200	351	510
Tropical	BJ	18	37	41	67	74
Anti-fungus	FJ	82	170	239	246	339

Class H insulation is not available on Explosion-Proof Motors.

Specify one.

■ For 1.15 Service Factor—Specify Class F insulation.

## THERMOSTATS (Polyphase Motors)

In addition includes two temperature sensing thermostats per motor. Thermostats are auto-

matic reset with normally open or normally closed contacts.

**DISCOUNT D-46c**

Thermostat Type*	56 Frame	140 Frame	180 Frame	210/250 Frame
Class F & H Thermostat	\$91	\$91	\$91	106

Specify one.

## FREQUENCY

All standard A-C motors are designed for operation at a line frequency of 60 Hz.

If other than standard frequency is desired, use one of the following options:

**DISCOUNT D-46c**

Frequency*	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
50 Hz	\$50	\$71	\$112	\$182	\$315
60/50 Hz (Polyphase only)					

Specify one.

## BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G3-56.

Motors with modifications in shaded areas require release quantities of 5 or more identical units.

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100



# Modifications

## ALTITUDE

All electric motors are suitable for operation at altitudes up to 3,300 ft/1,000 m at a maximum ambient of up to 40°C. Satisfactory operation can also be obtained at higher altitudes and lower ambient temperatures as shown below.

30 deg. C ambient to a maximum altitude of 6,600 ft/2,200 m.

20 deg. C ambient to a maximum altitude of 9,900 ft/3,300 m.

Motors having a service factor of 1.15 will operate satisfactorily at 1.0 service factor up to a maximum altitude of 9,900 ft/3,300 m.

Addition of one of the following modifications provides:

- Suitable for operation at an altitude above 3,300 ft/1,000 m. and below 6,600 ft/2,000 m. 40°C ambient.

### DISCOUNT—D-46

56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
\$68	\$68	\$91	\$112	\$147

- Suitable for operation at an altitude above 6,600 ft/2,000 m. and below 9,900 ft/3,000 m. 40°C ambient.

### DISCOUNT—D-46c

56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
\$68	\$68	\$91	\$112	\$147

- Specify one.  
Price added includes proper nameplate stamping.

## AMBIENT

A standard machine is designed so that the temperature rise produced within it, added to the standard 40°C ambient, will not exceed the winding-insulation temperature limit.

If the ambient temperature is other than 40 deg. C, the addition of one of the following provides:

### DISCOUNT—D-46c

Ambient/Frame*	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame
- 40 deg. C ambient temperature (Includes low temp. lubricant)	\$68	\$68	\$91	\$112	\$147
50 deg. C ambient temperature					
65 deg. C ambient temperature					

High ambient designs not available on explosion-proof motors without complete engineering investigation. Contact A-C Products.

\* Specify one.

## Gearcases for low temperature applications:

The chart listed below applies to gearcases used in ambient temperatures between +10°F and -45°F. For lower temperatures consult factory. For motors operating at ambient temperatures lower than -25°C (-13°F), consult motor modification section. No basic modification charge applies to motors operating between +40°C and -25°C.

### DISCOUNT—D-46c

	CASE SIZE	LOW TEMP. ADDER*
PARALLEL	SG16 Thru TG28	\$ 60
	SM16 Thru TM28	\$150

### DISCOUNT—D-46c

Mobil SHC629 or USDA H1 Food Grade Lubricant	
Case Size	List Adder
SG16	\$10
SG21	\$10
SG28	\$10
DG16	\$10
DG21	\$20
DG28	\$50
TG16	\$20
TG21	\$50
TG28	\$80

## BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G3-56.

Motors with modifications in shaded areas require release quantities of 5 or more identical units.

## G3-58

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100

# Modifications

## EASY CLEAN

MASTER XL EASY CLEAN gearmotors are designed and constructed to meet the most exacting requirements of food processors, canners, meat packers, bakeries, dairies, drug and cosmetic manufacturers. The EASY CLEAN line will meet the industry standards recommended by the Bakery Institute Sanitary Standards Committee (BISSC), 3-A Dairy Industry Standards Committee and others to whom the maintenance of sanitary conditions is highly important.

EASY CLEAN gearmotors feature smooth, corrosion resistant frames and end shield, easily removable fan covers and fans, corrosion proof hardware with no exposed threads or pockets which are hard to clean or are not self-draining. They may be used in either "wet" or "dry" areas and are cleanable by dry methods or by wash-down with a hose stream, and they are resistant to the corrosive action of food acids, detergents

and sanitizers. EASY CLEAN gearmotors are recommended for use in bakeries, dairy processes, ice cream plants, confectionary plants, pharmaceutical and vitamin manufacturing, cosmetic plants, packaged food plants, beverage and bottling plants, canneries and any other application requiring this special construction.

Some EASY CLEAN fractional horsepower ratings are also available in special totally enclosed, not fan cooled construction, featuring a smooth exterior and epoxy treated windings suitable for both wet or dry locations. This makes the gearmotor readily cleanable without removing a fan or fan cover. While corrosion resistant to a large degree and may be washed with detergent solutions, these gearmotors are better suited for applications where ease of cleaning is of utmost importance and air movement is objectionable.

## XT—ENCLOSURES

These modifications make the gearcase suitable for use outdoors or in chemical, dairy or food processing plants or other locations where high humidity, steam, chemical fumes are present where the gearmotor is washed frequently. Must be used with a motor having the proper enclosure.

If low temperature service is required, specify "low temp service" on order.

### Corrosion-Proof XT Features:

- Cast iron gearcase.
- Stainless steel nameplate.
- Soft copper washers on motor through bolts.
- Brass lubrication fittings.
- Double lip output seal.
- Stainless steel output shaft sleeve.

## XT, BISSC and EASY CLEAN ENCLOSURES

MOTOR ADDERS IN ADDITION TO BASIC MOTOR MOD. CHARGE

DISCOUNT—D-46c

Frame 56	Frame 140	Frame 180	Frame 210	Frame 250
\$147	\$159	\$221	\$309	\$494

### GEARCASE ADDERS

#### PARALLEL

S16	S21	S28	D16	D21	D28	T16	T21	T28
\$57	\$72	\$77	\$64	\$72	\$77	\$72	\$77	\$95

Motors with modifications in shaded areas require release quantities of 5 or more identical units.

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100



# Modifications

## BRAKES<sup>(2)</sup>

To price standard enclosed, 230/460 volt poly-phase, special voltage, XT, or explosion-proof gearmotors equipped with A-C electrically re-

leased spring-set brakes, make price addition from the tables below.

### DISCOUNT—D-46c

Motor Frame	Retarding Torque Lb-Ft	Self-TENV TEFC (1)	LIST PRICE ADDITIONS (1)		
			ADD BASIC MOD. CHARGE PLUS LIST BELOW		
			Self Adjusting List Adder	Explosion-Proof	Special Voltage
56	3	\$ 324	61	\$ 943	146
56	6	368	61	1027	
140	6	391	61	1803	109
182	10	586	N/A	1620	
184	15	632	N/A		
213	25	1798	N/A		

(1) Brake coils are 1/60/230.

### LIST ADDERS FOR XT BRAKES

### DISCOUNT—D-46b

Brake Size Ft. Lbs.	Motor Frame	List Adder*	Self-Adjusting List Adder
3	56	\$ 460	\$61
6	56	504	61
10	56	566	61
3	140	805	61
6	140	888	61
10	140	940	61
15	140	1044	84
10	180	1044	N/A
15	180	1150	
25	180	2820	
35	180	3030	
10	210	1044	
15	210	1150	
25	210	2820	
35	210	3132	
50	210	3342	
75	210	4177	
35	250	3133	
50	250	3342	
75	250	4386	
105	250	5012	

**BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G3-56.**

Modifications in shaded areas require quantities of 5 or more identical units.

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100

# modifications

## ULTI-SPEED A-C MOTORS

Hz; Two-Speed; Continuous Duty, Totally Enclosed; Polyphase; 230, 460 or 575 Volts; 1.0 Service Factor; Ball Bearing.

**APPLICATION**—These motors are designed for two speed operations where constant torque

output is desirable. Constant torque, two-speed motors are particularly well suited for the operation of presses, mixers, tumblers, mills, and many similar applications where the running load decreases in direct proportion to the decrease in speed.

### DISCOUNT—D-46c

HP	Motor Rated Load rpm	No. of Wdgs.	Frame	ADD TO GEARMOTOR BASIC LIST	
				1-4	5 & Up
1/3 - 1/4	1725 1140	2	56	N/A	\$ 562
1/3 - 1/6	1725 850	1	56		619
1/2 - 1/3	1725 1140	2	56	N/A	562
1/2 - 1/4	1725 850	1	56		630
3/4 - 1/2	1725 1140	2	56	N/A	699
3/4 - 3/8	1725 850	1	56		619
1 - 2/3	1725 1140	2	56	N/A	932
1 - 1/2	1725 850	1	56		647
1 1/2	1800 1200	2	182T	\$ 771	771
	1800 900	1	145T	N/A	329
2	1800 1200	2	184T	902	902
	1800 900	1	182T	419	419
3	1800 1200	2	213T	1034	1034
	1800 900	1	184T	470	470
5	1800 1200	2	215T	1399	1399
	1800 900	1	213T	637	637
7 1/2	1800 1200	2	254T	1847	1847
	1800 900	1	215T	982	982
10	1800 1200	2	256T	2282	2282
	1800 900	1	254T	1213	1213

## VOLTAGE

Standard voltage motors will operate successfully, but not necessarily in accordance with standard guarantees at voltages 10% above or below nameplate stamping at maintained frequency.

Special Voltages at 60 Hz.

When either or both of the voltages in a dual voltage rating are not standard make the additional charge for special voltage.

### DISCOUNT—D-46c

Special Voltage	Motor Frame	Add to Gearmotor Basic List Price
Single line voltage of a dual voltage rating.	56 1-4	N/A
	5 & Up	\$72
Polyphase special voltage range of 200 to 600 volts.	140 1-4	N/A
	5 & up	55
	180/210	55

### 56 FRAME STANDARD VOLTAGE

Type CS Single-Phase	Type P Polyphase
115/230 volts	200 volts 230/460 volts 575 volts

## VOLTAGE—(POLYPHASE)

The voltages below are considered standard for the following frequencies and horsepower.

### 140-UP FRAME STANDARD VOLTAGE

60 Hz	50 Hz
Up to 10 hp	Up to 10 hp
200	200
230	380
460	400
575	440
—	550

## BASIC MOTOR MOD CHARGE APPLIES TO ALL MODIFICATIONS ON THIS PAGE—SEE PAGE G3-56.

Motors with modifications in shaded areas require release quantities of 5 or more identical units.

For assistance in selection and pricing  
Call Application Engineering—Columbus, Indiana  
(812) 376-1100



# Component Pricing

## GEARMOTOR COMPONENT PRICING

MOTOR PRICE + GEARHEAD PRICE + MODIFICATION CHARGE (if any) = GEARMOTOR TOTAL LIST PRICE

### GEARCASE ADDITION (APPARENT GEAR ADDITION)

#### DISCOUNT—D-46c

Case Size	List Price	C-Face Adders*		Easy Clean And XT Adders
		56/140	180/210	
SG16A	\$ 452			
SG16F	N/A	\$100	N/A	\$57
SG21A	945			
SG21F	N/A	100	\$230	72
SG28A	1215			
SG28F	N/A	N/A	230	77
DG16A	805			
DG16F	978	100	N/A	64
DG21A	1215			
DG21F	1501	100	230	72
DG28A	2013			
DG28F	2315	100	230	77
TG16A	1328			
TG16F	1618	100	N/A	72
TG21A	2203			
TG21F	2739	100	230	77
TG28A	3398			
TG28F	N/A	100	230	95

\* Replace "G" with "M" when C-face adaptor is added.

### 1750 RPM MOTOR ADDITION

#### DISCOUNT—D-46c

1750 RPM, 4 Pole Motors 60 Hz, 115/230 or 230/460 Volts		
Motor Only Add Gearcase Pg. G3-68		
HP	Polyphase Enc. Partial	Single-Phase Enc. Partial
1/4	\$ 188	\$181
1/3	194	196
1/2	203	227
3/4	235	264
1	247	292
1 1/2	270	370
2	294	
3	447	
5	500	
7 1/2	620	
10	729	
15	1394	
20	1625	

## GEARMOTOR COMPONENTS PRICING

**MOTOR PRICE + GEARHEAD PRICE + MODIFICATION CHARGE (if any) =  
GEARMOTOR TOTAL LIST PRICE**

### 1160 RPM MOTOR ADDITION

#### DISCOUNT—D-46c

1160 RPM, 6 Pole Motors 60 Hz, 115/230 or 230/460 Volts				
Motor Only Add Gearcase Pg. G3-68				
HP	Polyphase		Single-Phase	
	Enclosed	XP	Enclosed	XP
1/4	\$ 244	\$ 415	\$255	\$391
1/3	259	444	285	420
1/2	282	468	350	485
3/4	291	497		
1	312	509		
1 1/2	600	1000		
2	662	1062		
3	878	1180		
5	1263	1565		
7 1/2	1708	2093		

### MOTOR MODIFICATION SUMMARY (APPLIES TO ALL MOTORS)

#### DISCOUNT—D-46c

Motor Modifications—Add to Gearmotor Total List						
Add Basic Motor Modification Charge:*						
Less than 10 Units—See Pg. G3-56						
Modification	56 Frame	140 Frame	180 Frame	210 Frame	250 Frame	
<b>Insulation</b>						
Class F	\$ 68	\$ 68	\$ 91	\$112	\$147	
Class H	88	132	182	221	291	
Class BE	35	35	44	71	91	
Class FE	100	100	138	182	238	
Class BJ	18	18	18	41	41	
Class FJ	82	82	106	150	188	
<b>Thermostats</b>						
Class B	39	40	40	50	50	
Class F & H	91	91	91	106	106	
Frequency	50	71	112	182	315	
Altitude	68	68	91	112	147	
Ambient	68	68	91	112	147	
Easy Clean/XT	147	159	221	309	494	
<b>Brakes:</b>						
3 Ft. Lb.	6 Ft. Lb.	10 Ft. Lb.	15 Ft. Lb.	25 Ft. Lb.	30 Ft. Lb.	50 Ft. Lb.
<b>\$324</b>	<b>\$368</b>	<b>\$553</b>	<b>\$632</b>	<b>\$1015</b>	<b>\$1147</b>	<b>\$1397</b>

\* When you price from this block you must add Basic Motor Modification Charge for any quantity less than 10 units. See page G3-56.

Shaded areas indicate motors not available in quantities less than 5. See page G3-57.



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M60441	G3-9	M60484	G3-9	M61141	G3-9	M61182	G3-9	M94516	G3-9
M60442	G3-9	M60485	G3-9	M61142	G3-9	M61184	G3-9	M94517	G3-9
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M60447	G3-9	M60489	G3-9	M61146	G3-9	M61188	G3-9	M94814	G3-9
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M60450	G3-9	M60491	G3-9	M61149	G3-9	M61190	G3-9	M94822	G3-9
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M60452	G3-9	M61100	G3-9	M61151	G3-9	M61192	G3-9	M94828	G3-9
M60453	G3-9	M61101	G3-9	M61152	G3-9	M61193	G3-9	M94831	G3-9
M60454	G3-9	M61103	G3-9	M61153	G3-9	M61194	G3-9	M94833	G3-9
M60455	G3-9	M61105	G3-9	M61154	G3-9	M61195	G3-9	M94842	G3-9
M60456	G3-9	M61106	G3-9	M61155	G3-9	M61196	G3-9	M94843	G3-9
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M60462	G3-9	M61113	G3-9	M61161	G3-9	M61202	G3-9	M94853	G3-9
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# MASTER XL Parallel Dimension Sheet Index

Mtg.	Gearcase	Frames	Encl.	Type	D/S
CAST FT.	D16-D21-D28 T16-T21-T28	56/140	OPEN/TENV	P&CS	600767-200
		56	TEFC	P&CS	600767-201
		140	TEFC	P	600767-202
		48/56	XPFC	P&CS	600767-203
		56	XPNV	P&CS	600767-204
		140	XPNV/XPFC	P	600757-205
	D21—D28 T21—T28	180TY	TEFC	P	600746-38
		180TY	TEFC	P	600747-30
FLANGE	D16-D21-D28 T16-T21-T28	56/140	OPEN/TENV	P&CS	600767-206
		56	TEFC	P&CS	600767-207
		140	TEFC	P	600767-208
		48/56	XPFC	P&CS	600767-209
		56	XPNV	P&CS	600767-210
		140	XPNV/XPFC	P	600767-211
	D21—D28 T21	180TY	TEFC	P	600746-39
		180TY	TEFC	P	600747-31

MASTER XL PARALLEL GEARMOTOR—SINGLE REDUCTION

Mtg.	Gearcase	Frames	Encl.	Type	D/S
CAST FT.	SG16/SG21	56/140	OPEN/TENV	P&CS	600767-400
		56	TEFC	P&CS	600767-401
		140	XPFC	P&CS	600767-402
		48/56	XPFC	P&CS	600767-403
		56	XPNV	P&CS	600767-404
		140	XPNV/XPFC	P	600767-405
	SG28	180TY	TEFC	P	600745-58

For assistance call Engineering—Columbus, Indiana (812) 376-1263

# Motor Compatibility Chart

Frame		Encl.	Accessories	SG16A	SM16A	DG16A	DM16A	TG16A	TM16A	SG21A	SM21A	DG21A	DM21A	TG21A	TM21A	SG28A	SM28A	DG28A	DM28A	TG28A	TM28A
56	56	TEFC	ALL																		
		XPFC	ALL																		
140T	143T	TEFC	ALL																		
		XPFC	ALL																		
	145T	TEFC	ALL																		
		XPFC	ALL																		
180T	182T	TEFC	W/O ACC BRAKE																		
		XPFC	W/O ACC BRAKE																		
	184T	TEFC	W/O ACC BRAKE																		
		XPFC	W/O ACC BRAKE																		
		TEFC	W/O ACC BRAKE																		
		XPFC	W/O ACC BRAKE																		
210T	213T	TEFC	W/O ACC BRAKE																		
		XPFC	W/O ACC BRAKE																		
	215T	TEFC	W/O ACC BRAKE																		
		XPFC	W/O ACC BRAKE																		
		TEFC	W/O ACC BRAKE																		
		XPFC	W/O ACC BRAKE																		
250T <sup>(1)</sup>	254T <sup>(1)</sup>	TEFC	W/O ACC BRAKE														X	X	X	X	X
		XPFC	W/O ACC BRAKE														X	X	X	X	X
	256T <sup>(1)</sup>	TEFC	W/O ACC BRAKE														X	X	X	X	X
		XPFC	W/O ACC BRAKE														X	X	X	X	X
	284T	ALL	ALL																		
		ALL	ALL																		
		ALL	ALL																		
		ALL	ALL																		
320T	324T	ALL	W/O ACC BRAKE																		
		ALL	W/O ACC BRAKE																		
	324TS	ALL	W/O ACC BRAKE																		
		ALL	W/O ACC BRAKE																		
	326T	ALL	W/O ACC BRAKE																		
		ALL	W/O ACC BRAKE																		
	326TS	ALL	W/O ACC BRAKE																		
		ALL	W/O ACC BRAKE																		

- ☐ — NOT ACCEPTABLE  
☒ — ACCEPTABLE COMBINATIONS  
☒ — MOTOR MUST BE FOOT SUPPORTED  
 AND CAREFULLY ALIGNED  
 ACC — ACCESSORIES

PROT — PROTECTED  
 TEFC — TOTALLY ENCLOSED FAN-COOLED  
 XPFC — EXPLOSION-PROOF FAN-COOLED  
 TACH — MOTOR MOUNTED TACHOMETER  
 BRK. TACH — BRAKE AND TACHOMETER

(1) 210TC shaft dimensions required.



# Motor Compatibility Charts

Frame		Encl.	Accessories	SM16A	DM16A	TM16A	SM21A	DM21A	TM21A	SM28A	DM28A	TM28A
DB160AT	DB168 ATC	PROT. TENV	W/O ACC.									
			TACH.									
			BRAKE									
			BRK. & TACH.									
	DB169 ATC	PROT. TENV	W/O ACC.									
			TACH.									
			BRAKE									
			BRK. & TACH.									
	DB1610 ATC	PROT. TENV	W/O ACC.									
			TACH.									
			BRAKE									
			BRK. & TACH.									
	DB1611 ATC	PROT. TENV	W/O ACC.									
			TACH.									
			BRAKE								x	x
			BRK. & TACH.								x	x

- ☐ — NOT ACCEPTABLE  
☒ — ACCEPTABLE COMBINATIONS  
☒ — MOTOR MUST BE FOOT SUPPORTED AND CAREFULLY ALIGNED  
 ACC — ACCESSORIES  
 PROT — PROTECTED  
 TENV — TOTALLY ENCLOSED NON-VENTILATED  
 TACH — MOTOR MOUNTED TACHOMETER  
 BRK. TACH — BRAKE AND TACHOMETER

Frame	Encl.	Accessories	SM16A	DM16A	TM16A	SM21A	DM21A	TM21A	SM28A	DM28A	TM28A
C1800AT	DC1810 ATCZ (1)	W/O ACC.									
		TACH.									
		BRAKE									
		BRK. & TACH.									
	DC1811 ATCZ (1)	W/O ACC.									
		TACH.									
		BRAKE									
		BRK. & TACH.									
	C1811 ATCZ (1)	W/O ACC.									
		TACH.									
		BRAKE				x	x	x	x	x	x
		BRK. & TACH.				x	x	x	x	x	x
	C1812 ATCZ (1)	W/O ACC.									
		TACH.				x	x	x	x	x	x
		BRAKE				x	x	x	x	x	x
		BRK. & TACH.				x	x	x	x	x	x
C2113AT	SC2113 ATCZ (2)	W/O ACC.				x	x	x	x	x	x
		TACH.				x	x	x	x	x	x
		BRAKE				x	x	x	x	x	x
		BRK. & TACH.				x	x	x	x	x	x
	MC2113 ATCZ (2)	W/O ACC.				x	x	x	x	x	x
		TACH.				x	x	x	x	x	x
		BRAKE				x	x	x	x	x	x
		BRK. & TACH.				x	x	x	x	x	x
	LC2113 ATCZ (2)	W/O ACC.				x	x	x	x	x	x
		TACH.				x	x	x	x	x	x
		BRAKE				x	x	x	x	x	x
		BRK. & TACH.				x	x	x	x	x	x

(1) WITH SHAFT SAME AS 180TC

(2) WITH SHAFT SAME AS 210TC

□ — NOT ACCEPTABLE

■ — ACCEPTABLE COMBINATIONS

☒ — MOTOR MUST BE FOOT SUPPORTED  
AND CAREFULLY ALIGNED

ACC — ACCESSORIES

OPEN-SV — OPEN SELF VENTILATED

OPEN-FV — OPEN FORCE VENTILATED

TENV — TOTALLY ENCLOSED NON-VENTILATED

TACH — MOTOR MOUNTED TACHOMETER

BRK. TACH — BRAKE AND TACHOMETER



# Motor Compatibility Charts

Frame		Encl.	Accessories	SM16A	DM16A	TM16A	SM21A	DM21A	TM21A	SM28A	DM28A	TM28A
B1800AT	B1811ATCZ (1)	PROT. & TENV	W/O ACC.									
			TACH.									
			BRAKE									
		TEFC	BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.									
			TACH.									
	B1812ATCZ (1)	XPFC	BRAKE									
			BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.									
		PROT. & TENV	TACH.									
			BRAKE									
			BRK. & TACH.				x	x	x	x	x	x
B2100AT	B2111ATCZ (2)	PROT. & TENV	W/O ACC.									
			TACH.				x	x	x	x	x	x
			BRAKE									
		TEFC	BRK. & TACH.									
			W/O ACC.				x	x	x	x	x	x
			TACH.									
		XPFC	BRAKE									
			BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.									
	B2112ATCZ (2)	PROT. & TENV	TACH.				x	x	x	x	x	x
			BRAKE									
			BRK. & TACH.									
		TEFC	W/O ACC.				x	x	x	x	x	x
			TACH.									
			BRAKE									
		XPFC	BRK. & TACH.									
			W/O ACC.									
			TACH.									

☐ NOT ACCEPTABLE  
☒ ACCEPTABLE COMBINATIONS  
☒ MOTOR MUST BE FOOT SUPPORTED AND CAREFULLY ALIGNED  
 ACC — ACCESSORIES  
 PROT — PROTECTED  
 TEFC — TOTALLY ENCLOSED FAN-COOLED  
 XPFC — EXPLOSION-PROOF FAN-COOLED  
 TACH — MOTOR MOUNTED TACHOMETER  
 BRK. TACH — BRAKE AND TACHOMETER

- (1) With shaft same as 180TC  
 (2) With shaft same as 210TC

Frame		Encl.	Accessories	SM16A	DM16A	TM16A	SM21A	DM21A	TM21A	SM28A	DM28A	TM28A
180A — 180AT	186ACZ (1)	TEFC	W/O ACC.									
			TACH.									
			BRAKE				x	x	x	x	x	x
		XPFC	BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.									
			TACH.									
	187ACZ (1)	TEFC	BRAKE									
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.									
			TACH.				x	x	x	x	x	x
		XPFC	BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
	188ATCZ (1)	TEFC	W/O ACC.									
			TACH.									
			BRAKE				x	x	x	x	x	x
		XPFC	BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.									
			TACH.				x	x	x	x	x	x
180AT	1810ATCZ (1)	TEFC	BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.									
			TACH.				x	x	x	x	x	x
		XPFC	BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x

(1) With shaft same as 180TC

- ☐ — NOT ACCEPTABLE  
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 TEFC — TOTALLY ENCLOSED FAN-COOLED  
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 BRK. TACH — BRAKE AND TACHOMETER



# Motor Compatibility Charts

Frame		Encl.	Accessories	SM16A	DM16A	TM16A	SM21A	DM21A	TM21A	SM28A	DM28A	TM28A
210A — 210AT	215ACZ (1)	TEFC	W/O ACC.									
			TACH.									
			BRAKE				x	x	x	x	x	x
		XPFC	BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.									
			TACH.				x	x	x	x	x	x
	216ACZ (1)	TEFC	BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.									
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
	218ACZ (1)	TEFC	W/O ACC.									
			TACH.									
			BRAKE				x	x	x	x	x	x
		XPFC	BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
	219ATCZ L219ATCZ (1)	TEFC	BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
	2110ATCZ (1)	TEFC	W/O ACC.									
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
		XPFC	BRK. & TACH.				x	x	x	x	x	x
			W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
	2110ATCZ (1)	TEFC	BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x

- ☐ — NOT ACCEPTABLE  
☒ — ACCEPTABLE COMBINATIONS  
☒ — MOTOR MUST BE FOOT SUPPORTED AND CAREFULLY ALIGNED

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 TEFC — TOTALLY ENCLOSED FAN-COOLED  
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 TACH — MOTOR MOUNTED TACHOMETER  
 BRK. TACH — BRAKE AND TACHOMETER

(1) With shaft same as 210TC

Frame		Encl.	Accessories	SM16A	DM16A	TM16A	SM21A	DM21A	TM21A	SM28A	DM28A	TM28A
250A — 250AT	254ACZ (1)	TEFC	W/O ACC.				x	x	■	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		TEFC	W/O ACC.				x	x	■	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
	256ACZ (1)	TEFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
	258ATCZ (1)	TEFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
	259ATCZ (1)	TEFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x
		XPFC	W/O ACC.				x	x	x	x	x	x
			TACH.				x	x	x	x	x	x
			BRAKE				x	x	x	x	x	x
			BRK. & TACH.				x	x	x	x	x	x

(1) With shaft same as 210TC

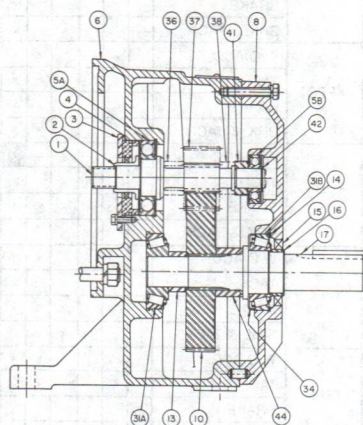
- ☐ — NOT ACCEPTABLE  
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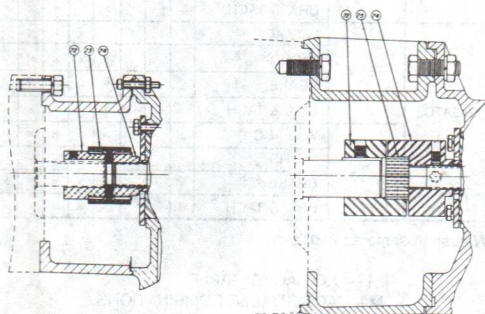


## MASTER XL GEARMOTORS & C-FACE REDUCERS

SINGLE PARALLEL  
SIZES SG16, SM16, SG21, SM21, SG28, SM28  
SINGLE PARALLEL



### C-FACE REDUCER COUPLING PARTS SIZES SM16, SM21, SM28



# MASTER XL GEARMOTORS

SINGLE PARALLEL  
SIZES SG16, SM16, SG21, SM21, SG28, SM28  
SINGLE PARALLEL

Item No.	Description	Qty. Each	Part Numbers		
			S16	S21	S28
1	Input Shaft (Pinion)	1*	—	—	—
2	Oil Seal Sleeve (1)	1*	411621-07A	411621-20A	411621-20C
3	Lock Ring or Clamp	1	411625-13A	411625-04A	411637-01A†
4	Oil Seal Assembly (1)	1*	411620-21A	411620-11B	411620-13C
5a	Bearing	1*	79147-02P	79147-02AD	79147-02AL
5b	Bearing	1*	79147-02B	79147-02F	79147-02P
6	Gearcase (56/140)	1	86856-02-A	86856-02A	86860-04A
6a	Gearcase (180/210)	1	—	86856-04-A	86860-04-A
8	Bearing Housing	1	79070-02A	79039-02A	79045-02A
10	Gear, Driven	1*	—	—	—
13	Spacer	1	411622-08H	411622-07C	411622-11A
14	Shims—As Required	—	411623-01E	411623-01Y	411623-02A
15	Oil Seal (1)	1*	411627-01AL	411627-01AM	411627-01A
16	Oil Seal Sleeve (1)	1*	411621-08B	411621-10A	411621-15B
17	Output Shaft	—	602088-01A	602050-01A	602066-01R
31a	Bearing	1*	411626-01B	411626-01A	411626-01R
31b	Bearing	1*	411626-01D	411626-01W	411626-01AR
34	Grease Retainer—When Req'd.	1	411624-01B	—	411624-01R
36	Spacer (For Shell Pinion only)	1	—	—	411622-09B
37	Shell Pinion (Some S28 Ratios only)	1	—	—	—
38	Spacer (For Shell Pinion only)	1	—	—	411622-08C
41	Spacer (S21, S28 only)	1	—	411622-02D	411622-07C
42	Lock Ring (S28 only)	1	—	—	056509
43	Lock Ring (S16 only)	1	411637-02C	—	—
44	Spacer	1	411622-08J	411622-09A	411622-12L
50	Gasket—Brg. Hsg (Not Shown) (1)	1*	602028-14A	602028-05A	602028-09A
72	Coupling Hub—Bore & Key	1	—	—	—
73	Coupling Sleeve	1	—	—	—
74	Coupling Hub—Splined	1	—	—	—
75	Coupling Spider	1	—	—	—
	Oil Seal & Gasket Kit	1	79019-38-AS	79019-38-AT	79019-38-AV

\* Recommended Spares.

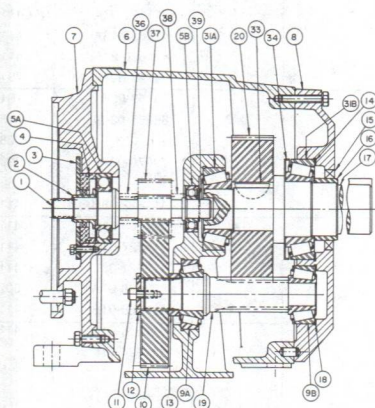
† Part number shown is for lock ring. Units built after May 1985 were supplied with clamp (part #411625-04A).

(1) Can use oil seal & gasket kit.

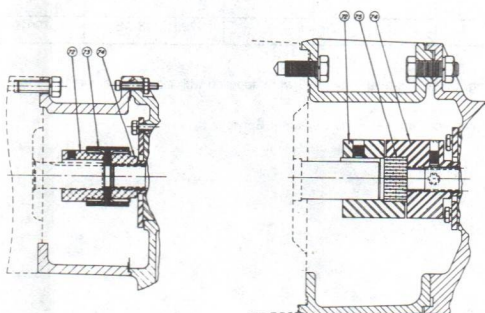
**Note:** For part numbers not shown contact Renewal Parts Customer Service.



**MASTER X-L GEARMOTORS & C-FACE REDUCERS**  
**DOUBLE PARALLEL**  
**SIZES DG16, DM16, DG21, DG28, DM28**  
**DOUBLE PARALLEL**



**C-FACE REDUCER COUPLING PARTS**  
**SIZES DM16, DM21, DM28**



Item No.	Description	Qty. Each	Part Numbers		
			D16	D21	D28
1	Input Shaft—1st Stg. Pinion	1*	—	—	—
2	Oil Seal Sleeve (1)	1*	411621-07A	411621-20A	411621-20C
3	Lock Ring or Clamp	1	411625-13A	411625-04A	411625-04A
4	Oil Seal Assembly (1)	1*	411620-21A	411620-11B	411620-13C
5a	Bearing	1*	79147-02P	79147-02AD	79147-02AL
5b	Bearing	1*	79147-02B	79147-02F	79147-02P
6	Gearcase	1	86870-02A	86858-02A	86862-02A
7	Cover Plate—Input (56/140)	1	79073-04A	79041-02A	79047-02A
7b	Cover Plate—Input (180/210)	1	—	79041-04B	79047-04D
8	Bearing Housing—Output	1	79074-02A	79042-02A	79048-02A
10	Gear—1st Stg. Driven	1*	—	—	—
14	Shims—As Required	—	411623-01Y	411623-02AD	411623-03A
15	Oil Seal (1)	1*	411627-01AM	411627-01A	411627-01D
16	Oil Seal Sleeve (1)	1*	411621-10C	411621-13A	411621-18B
17	Output Shaft	1	602088-02A	602050-02A	602066-02A
18	Shims—As Required	—	411623-01A	411623-02D	411623-03E
19	Pinion Shaft—2nd Stg. Driver	1*	—	—	—
20	Gear—2nd Stg. Driven	1*	—	—	—
31a	Bearing	1*	411626-01-W	411626-01-X	411626-01-AY
31b	Bearing	1*	411626-01-A	411626-01-AA	411626-01-AB
33	Key—Gear	1	050992	057500	050768
34	Grease Retainer—When Required	1	411624-01E	411624-01F	411624-01X
36	Spacer (For Shell Pinion only)	1	—	—	411622-09B
37	Shell Pinion (Some D28 ratios only)	1	—	—	—
38	Spacer (For Shell Pinion only)	1	—	—	411622-08B
50	Gasket, Brg. Hsg.—Not Shown (1)	2*	602028-08C	602028-06A	602028-10A
72	Coupling Hub—Bore & Key	1	—	—	—
73	Coupling Sleeve	1	—	—	—
74	Coupling Hub—Splined	1	—	—	—
75	Coupling Spider	1	—	—	—
	Oil Seal & Gasket Kit	1	79019-38-AW	79019-38-AX	79019-38-AY

Recommended Spares.

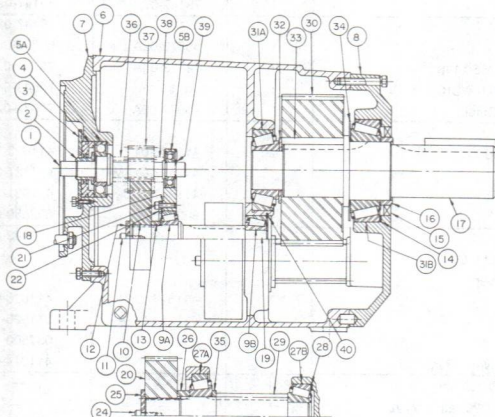
\*) Can use oil seal & gasket kit.

Note: For part numbers not shown contact Renewal Parts Customer Service.

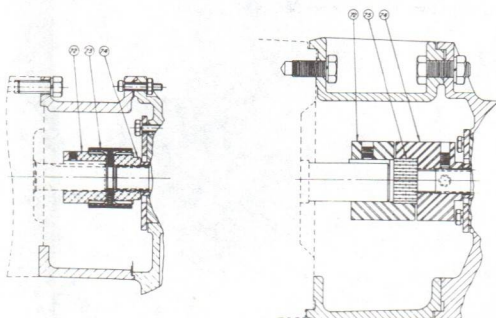


## MASTER X-L GEARMOTORS & C-FACE REDUCERS TRIPLE PARALLEL SIZES TG16, TM16, TG21, TM21, TG28, TM28

### TRIPLE PARALLEL



### C-FACE REDUCER COUPLING PARTS SIZES TM16, TM21, TM28



Item No.	Description	Qty. Each	Part Numbers		
			T16	T21	T28
1	Input Shaft—1st Stg. Pinion	1*	—	—	—
2	Oil Seal Sleeve (1)	1*	411621-07A	411621-20A	411621-20C
3	Lock Ring or Clamp	1	411625-13A	411625-04A	411625-04A
4	Oil Seal Assembly (1)	1*	411620-21A	411620-11B	411620-13C
5a	Bearing	1*	79147-02P	79147-02AD	79147-02AL
5b	Bearing	1*	79147-02B	79147-02F	79147-02P
6	Gearcase	1	86871-02A	86859-02A	86863-02A
7	Cover Plate—Input (56/140)	1	79073-04A	79041-02A	79047-02A
7b	Cover Plate—Input (180/210)	1	—	79041-04B	79047-04D
8	Bearing Housing—Output	1	79076-02A	79044-02A	79049-02A
9a	Bearing	1*	411626-01D	411626-01BE	411626-01AW
9b	Bearing	1*	411626-01B	411626-01AD	411626-01AE
10	Gear—1st Stg. Driven	1*	—	—	—
11	Screw	1	411631-01A	411631-01A	411631-01D
12	Washer	1	411632-01B	411692-01B	411632-01A
13	Spacer	1	411622-08H	411622-10B	411622-12D
14	Shims—As Required	—	411623-02A	411623-03A	411623-03AD
15	Oil Seal (1)	1*	411627-01A	411627-01D	411627-02D
16	Oil Seal Sleeve (1)	1*	411621-15D	411621-18A	411621-19A
17	Output Shaft	1	602088-03A	602050-03A	602066-03A
18	Shims—As Required	—	411623-05A	411623-02A	411623-04E
19	Pinion Shaft—2nd Stg. Driver	1*	—	—	—
20	Gear—2nd Stg. Driven	1*	—	—	—
21	Screw	2	411631-02A	411631-02A	411631-02A
22	Clamp	1	411625-09A	411625-09A	411625-06B
23	Spacer (T16 only)	1	411622-05A	—	—
24	Screw	1	411631-01A	411631-01A	411631-03B
25	Washer	1	411632-01B	411632-01A	411632-01C
26	Spacer	1	411622-08G	411622-13A	411622-17C
27a	Bearing	1*	411626-01B	411626-01AC	411626-01AY
27b	Bearing	1*	411626-01B	411626-01AA	411626-01BB
28	Shims—As Required	—	411623-01E	411623-02Y	411623-03Y
29	Pinion Shaft—3rd Stg. Driver	1*	—	—	—
30	Gear—3rd Stg. Driven	1*	—	—	—
31a	Bearing	1*	411626-01R	411626-01AB	411626-01AX
31b	Bearing	1*	411626-01BC	411626-01Y	411626-01Y
32	Spacer (T16 & T28 only)	1	411622-10E	—	411622-18A
33	Key, Gear	1	053180	051283	151985
34	Grease Retainer	1	411624-01R	411624-01X	411624-02A
35	Spacer (T21 & T28 only)	1	—	411622-14A	411622-17B
36	Spacer (For Shell Pinion only)	1	—	—	411622-08B
37	Shell Pinion (Some T28 ratios only)	1	—	—	—
38	Spacer (For Shell Pinion only)	1	—	—	411622-08B
39	Lock Ring (T28 only)	1	—	—	056509
40	Lock Ring (T28 only)	1	—	—	058256
50	Gasket (1)	1	602028-08C	602028-08A	602028-08B
72	Coupling Hub—Bore & Key	1	—	—	—
73	Coupling Sleeve	1	—	—	—
74	Coupling Hub—Splined	1	—	—	—
75	Coupling Spider	1	—	—	—
	Oil Seal & Gasket Kit	1	79019-38-BA	79019-38-BB	79019-38-BC

Can use Oil & Gasket Kit.

\* Recommended spares.

Note: For part numbers not shown contact Renewal Parts Customer Service.



# Installation, Lubrication and Maintenance

## INSTALLATION

Proper Installation of MASTER speed reducers and gearmotors will insure reliable service and maximum life. Key items to minimize possible failures include:

**Gear Case Mounting**—To insure uniform pressure mount gear case on flat surface. Use uniform torque when mounting bolts are tightened.

**Shaft Overhung Loads**—Excessive overhung loads due to over tightening of belts or chains can result in broken shafts and reduce bearing life or failure.

**Couplings**—Improper coupling alignment can result in excessive stresses on gear unit shaft and bearings.

**Shock Loads**—Excessive shock loads can also result in damaging stresses on shafting and bearings.

## LUBRICATION

Proper lubrication of MASTER speed reducers is extremely important if long trouble-free operation is to be expected. Proper lubrication consists of:

1. Use of proper type and grade of lubricant.
2. Maintenance of correct oil level.
3. Drain, flush and refill at the required intervals.

MASTER XL speed reducers and gearmotors are filled at the factory with the proper oil to the correct level for the specified mounting position. It is impossible to select one gear lubricant of petroleum origin which is usable over a wide range of temperatures. Use lubricants of the proper group as required by the ambient temperature in which the reducer will operate.

The correct amount of oil is important to the performance of a speed reducer. Each MASTER speed reducer or gearmotor has a red oil level plug which indicates the proper oil mounting level for a given mounting position. Changes in the mounting position will require relocation of the level plug and adding or draining lubricant to insure proper amount of lubricant. Check the oil level plug location diagrams on instruction tags shipped with each reducer or gearmotor.

## Recommended Lubricants—

Use only the best grade of automotive engine lubricants, unless otherwise specified. Where gear units are used out-of-doors, seasonal changes may be necessary. The proper grade of oil is listed as follows:

Ambient (Room) Temp. ♦	SAE Grades of Oil for Output Shaft Speeds of			
	13.5 to 500 RPM	501 to 1000 RPM	1001 to 3000 RPM	Over 3000 RPM
110°F to 165°F	50 ▲	40	30	20W
60° to 110°F	40	30	20W	10W
35°F to 70°F	30	20W	10W	10W
10°F to 40°F	20W	10W	10W	...
-10°F to +20°F	10W	★	...	...
-30°F to +10°F	★ ♦	★ ♦	...	...
-65°F to -20°F	★ ♦	...	...	...

- ▲ Use SAE 50 heavy duty automotive oil with oxidation inhibitors.
- ★ Use Gulf Paramount Number 22 (A naphthenic base oil with a low pour point and viscosities of 109.8 SUS @ 100° or 3 SUS @ 210°F). Any other oil meeting these specs would be a suitable substitute.
- \* Use Mobil Oil Co. Avrex Number 903.
- ♦ Special oil seals are required for temperatures below 10°F.

## MAINTENANCE

Periodic changing of lubricant is important for maximum reducer or gearmotor performance. Lubricant should be drained and refilled after the first 250 hours of operation then every 1500 hours or six months thereafter, whichever occurs first.

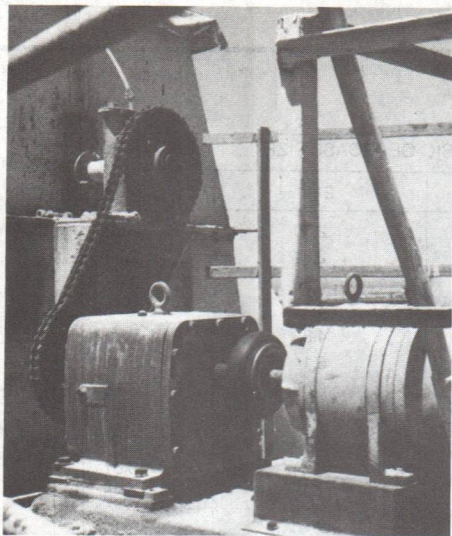
In addition to lubrication and installation, regular inspection to insure tightness of bolts and screws, correct alignment of shaft couplings, no major oil leaks, no excessive heating and no unusual vibration or noise will guarantee maximum performance and life of your MASTER product.

References	Rating p. G3-10 & G3-11	Dimens. p. G3-12—G3-15	Mtg. Pos. p. G3-8	How to Order p. G3-8
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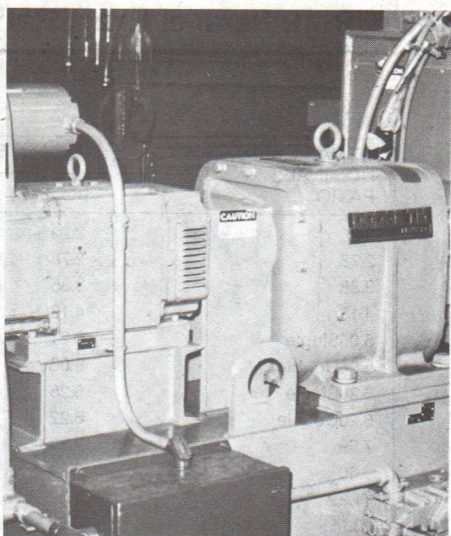
# MASTER XL Parallel Exact Ratios

AGMA NOMINAL RATIO	BASIC GEARCASE SIZE		
	16	21	28
2.25	2.22	2.30	2.22
2.76	2.78	2.81	2.68
3.38	3.35	3.50	3.48
4.13	4.12	4.21	4.15
5.06Single	5.21	4.82	5.06
5.06Double	5.06	5.11	5.01
6.20Single	6.25	6.07	6.36
6.20Double	6.22	6.10	6.19
7.59	7.35	7.43	7.56
9.30	9.04	9.34	9.01
11.39	11.32	11.41	10.88
13.95	13.62	14.22	14.13
17.09	18.05	17.11	17.96
20.93Double	21.50	22.02	21.16
20.93Triple	20.55	20.76	20.02
25.63Double	25.27	25.23	26.02
25.63Triple	25.28	24.78	24.76
31.39Double	30.29	31.76	30.42
31.39Triple	31.65	33.01	31.13
38.44	38.76	37.96	39.54
47.08	45.97	46.34	46.58
57.67	59.13	57.76	56.52
70.63	68.03	69.49	71.84
86.50	86.14	89.47	88.36
105.9	102.66	102.50	104.09
129.7	123.05	129.02	121.69





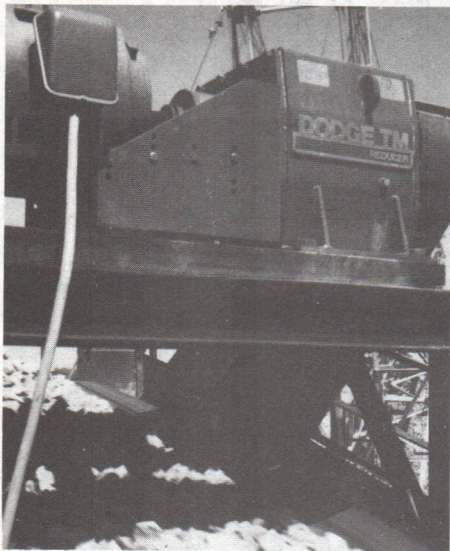
Bucket elevator at a CHEMICAL dry processing plant.



Machine roll drive in the METAL WORKING industry.

## **DODGE TXM Reducers** Handle Industry's Tough Applications

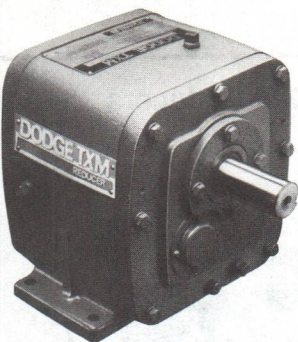
Head pulley drive on conveyor system in a CRUSHED STONE plant.



Main drive on feeder conveyor in a SAND & GRAVEL plant.



Note: Guards have been removed for photographic purposes.



# DODGE® TXM CONCENTRIC REDUCERS

- Proven Performance
- Proven Versatility
- Proven Dependability

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# Features & Benefits

1. Quality Cast Iron or Fabricated Steel Gearcases with integral internal walls provide rigidity and durability for heavy loads. Integral base offers solid support and rigid alignment.
2. Precision Machined Gearcase End Covers are fit and doweled to gearcase to insure proper bearing location, under load. End covers are removable to allow easier inspecting and servicing.
3. Computer Designed Helical Gearing provides high torque capacity and operating efficiency at every ratio. Gears conform to rigid AGMA and DODGE quality standards.
4. Spring Loaded Double Lip Seals on both input and output shafts prevent leakage and offer protection from contaminants. Splash lubrication system adds to reducer life by allowing a continuous flow of oil to bearings and gears, thus insuring smooth, cool and efficient operation with minimum friction and heat build-up.
5. Antifriction Bearings allow maximum efficiency on all stages of reduction.
6. Sturdy Output Shafts supported on wide bearing centers assure proper gear alignment under load while providing high overhung load capacity.
7. Conveniently Located Pipe Taps permit operation of units in standard floor, sidewall or ceiling mount positions.
8. Magnetic Drain Plug assists in detection of undesirable wear patterns by attracting contaminants in the oil.

## Optional features add application flexibility.

### Backstops

DODGE offers optional backstop equipment for service conditions that require prevention of reversal of direction.

### Auxiliary Seals

Auxiliary grease-purged seals are available to keep contaminants out of gearcase even in the harshest operating environments. Auxiliary seals may be added in the field without changing shafts or disassembling the reducer.

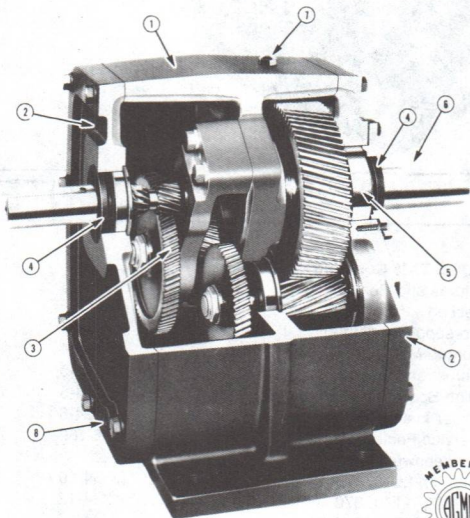
### Heat Exchanger or Cooling Fans

For thermally limited ratings cooling fans and heat exchangers are available, allowing the reducer to operate at or near its mechanical rating.

### Top Motor Mounts

Top mount RELIANCE motors and DODGE V-belt drives combine with the DODGE TXM Reducer to save floor space and provide infinite adjustment of reducer output speed.

## DODGE TXM Reducers ...



### Slide Base

Slide base for chain drive installations allows for take-up of chain on the reducer output side.

### Fabricated Steel Scoops

RELIANCE AC motors, fabricated steel scoops and pre-selected DODGE couplings can be teamed up with DODGE TXM Reducers to provide scoop motor/reducer configurations up to 250 hp.

### Fabricated Steel Base Plates

Fabricated steel baseplates offer optimal support and assures alignment between motor and reducer. A single warranty system may be obtained by combining a RELIANCE AC or DC motor, DODGE coupling and DODGE TXM Reducer on a steel baseplate.

## depend on them!

### over 200,000 lb-ins of torque at the speed you need ...

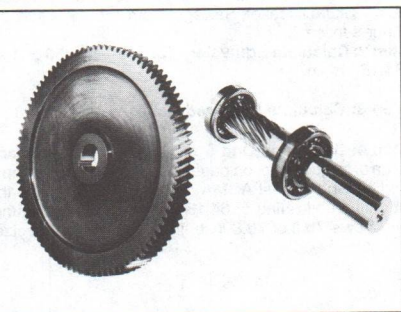
The DODGE TXM Reducer is on the job today in a broad range of heavy duty industrial applications. Its tough rugged design combined with its ease of maintenance have given it the reputation of being a proven performer. The DODGE TXM Reducer is engineered to deliver the low speed, high torque performance your application demands with maximum efficiency, and it's built to keep on delivering day after day.

Over 70 years of gear product technology and application experience have gone into the engineering and manufacturing of the DODGE TXM Reducer. It is this experience, backed by product research and development from RELIANCE ELECTRIC, that assures you of dependable, economical drive and power transmission equipment.

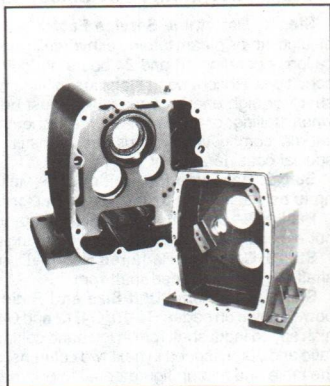
### Application flexibility moves you out front fast

Put the DODGE TXM Reducer on your power transmission team and put yourself ahead in application flexibility. Select from 12 case sizes handling loads to 225,000 lb-ins. Case size 1 through 6 has 23 standard AGMA ratios, from 2.25:1 to 194.6:1 and case size 7 through 12 has 19 standard AGMA ratios, from 5:1 to 194.6:1. Gearing is computer designed to give you high torque capacity and operating efficiency at every ratio.

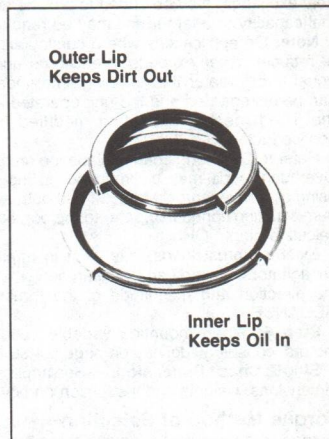
Mounting options include foot mount, top motor mount, scoop motor/reducer, base plate and slide base configurations.



▲ **Computer designed gears and pinions** are cut from the finest gear steel, then hardened and finish honed to provide tough, wear-resistant gearing for maximum durability and efficiency.



▲ **Rugged, corrosion-resistant gearcases** with integral bases are made of cast iron (sizes 100 through 700) or fabricated steel (sizes 800 through 1200) for use in all industrial environments.



▲ **Spring-loaded, double lip seals** on both input and output shafts, provide positive sealing action.



# Selection

## Horsepower Method of Selection

**Step 1: Determine Service Factor**—See Table 2 for electric motor, steam turbine or hydraulic motor drive applications operating 10 and 24 hours per day under normal conditions. Recommendations are minimum. (For extreme shock or high energy loads which must be absorbed, as when stalling, or for power sources other than listed; i.e.: internal combustion engines, etc., consult RELIANCE for special consideration or see table 1.)

**Step 2: Calculate Equivalent HP**—Multiply the actual hp to be transmitted by the service factor from Step 1.

**Peak HP**—Maximum momentary or starting loads must not exceed 200% of the reducer hp rating.

**Step 3: Calculate Required Ratio**—Divide high speed shaft rpm by low speed shaft rpm.

**Step 4: Determine Unit Size and Ratio**—See horsepower tables on pages G4-10, G4-12 and G4-14. From the high speed input shaft rpm in left hand column and desired ratio and output speed in next two columns, trace right into the table and find hp figure equal to or greater than value obtained in Step 2. (When the required input speed falls between those tabulated, interpolate to determine unit rating.)

**Step 5: Check Thermal Ratings and Overhung Loads**—When hp rating in table appears in shaded area, compare the actual hp required (without service factor) with the thermal hp capacity by referring to table on page G4-16. If actual load exceeds the thermal capacity, a fan or heat exchanger may be added to provide additional thermal capacity or a larger unit may be required.

**Note:** On applications where continuous running time of reducer never exceeds three hours and idle time is equal to or greater than running time, thermal limitation can be disregarded and the unit operated at loads up to the listed mechanical rating modified by applicable service factors.

Refer to Overhung Load explanation on opposite page. Overhung loads may be imposed on input shaft when using a sheave, sprocket, etc. If unit output shaft is other than coupling connected, refer to top portion of Table 8 to calculate output OHL.

External thrust loads may exist in applications such as agitators, mixers and similar equipment. Calculate the direction and magnitude of the thrust and consult RELIANCE.

**Step 6:** When mounting variable speed AC or DC motors, consult guidelines on page G4-56 & 57.

**Step 7: Check Dimensions**—See applicable pages for dimensions, weights and instruction on how to order.

## Torque Method of Selection

Determine service factor, equivalent torque and unit size using the same steps as outlined above for hp method, except in Step 4 refer to torque tables on pages G4-11, G4-13 and G4-15. Interpolate for speeds not listed. When ratings are shown in shaded area convert required torque, without service factor, to hp by using the formula:

$$\text{hp} = \frac{\text{Torque (lb.-in.)} \times \text{Low Speed Shaft rpm}}{63,000}$$

and compare computed results with the thermal capacities shown in table on page G4-16.

## EXAMPLE OF SELECTION

### Horsepower Method

A 30 hp 1750 rpm motor is used to drive a lumber mill debarking drum @ 100 rpm—running 10 hours a day. Unit is coupling connected on both the high speed and low speed shafts.

**Step 1: Determine Service Factors**—Factor (under heading: Lumber Industry) from Table 2 is 1.75 for 10 hour service.

**Step 2: Calculate Equivalent HP**— $30 \times 1.75 = 52.5$

**Step 3: Calculate Required Ratio**— $\frac{1750}{100} = 17.5$

**Step 4: Determine Unit Size and Ratio**—In left hand column of horsepower table, on page G4-11, find 1750 rpm input speed and the closest AGMA ratio of 17.09. Trace to the right until a unit of 52.5 hp or more is found. Table shows 67.9 hp for a size 600 unit.

**Step 5: Check Thermal Ratings, Thrust and Overhung Loads**—The 67.9 hp figure shown in table is not in shaded area. This indicates thermal hp is satisfactory. Since high and low speed shafts are coupling connected, thrust and overhung loads will not exist.

**Step 6: Check Dimensions**—See page G4-21 for dimensions and weights. See page G4-6 for instructions on how to order.

### Torque Method

Running 10 hours a day, a scum breaker for a sewage disposal system requires 51,350 lb.-in. of torque @ 230 rpm and has an overhung load of 6,710 pounds. Motor speed is 1170 rpm.

**Step 1: Determine Service Factor**—Factor (under heading: Scum Breaker, Sewage) from Table 2 is 1.25 for 10-hour service.

**Step 2: Calculate Equivalent Torque**— $51,350 \times 1.25 = 64,187 \text{ lb.-in.}$

**Step 3: Calculate Required Ratio**— $\frac{1170}{230} = 5.08$

**Step 4: Determine Unit Size and Ratio**—In left hand column of torque table, on page G4-13, find 1170 rpm input speed and the closest AGMA ratio of 5.06:1. Trace to the right until a unit rating of 64,187 lb.-in. or more is found. Table shows 76.8 or 76,800 lb.-in. (76.8 × 1000) for a size 900 unit.

**Step 5: Check Thermal Ratings, and Overhung Loads**—The 76.8 figure found in table in Step 4 is in a shaded area. This indicates reducer thermal rating should be checked. (If figure is not in shaded area, no thermal problem exists. Go on the OHL steps that follow.)

To check thermal ratings convert torque (without service factor) to hp by using the following formula:

$$\frac{\text{Torque (lb.-in.)} \times \text{Shaft rpm}}{63,000} = \frac{51,350 \times 230}{63,000} = 187.5$$

Refer to left hand side of thermal table on page G4-16. Under 1170 rpm and 5.06:1 AGMA ratio, a size 900 (under heading: Without Fan) is rated at 155 thermal hp. The 155 thermal hp is less than the required capacity of 187.5, so refer to right hand portion of table (under heading: With Fan). Table indicates 215 hp. Since 215 exceeds the computed figure of 187.5, fan cooling is required.

To check overhung loads refer to the Low Speed Shaft Table 8. At an output speed of 230 rpm, an OHL capacity of 11,800 pounds is indicated for a size 900 unit. This exceeds the requirement of 6,710 pounds and is satisfactory for this selection.

**Step 6: Check Dimensions**—See page G4-21 for dimensions and weights. See page G4-6 for instructions on how to order.

Table 1

Prime Mover Factor	
Electric Motors, Turbines	1.0
Piston Engines, 4 to 6 cylinders	1.25
Piston Engines, 1 to 3 cylinders	1.5

## Thrust and Overhung Loads

**Thrust Loads** may exist in applications such as agitators, mixers and similar equipment. Calculate the direction and magnitude of the thrust load and consult RELIANCE.

**Overhung Loads** may be calculated by the use of the following formula:

$$\text{OHL} = \frac{126,000 \times \text{hp} \times \text{Fc} \times \text{Lf}}{\text{PD} \times \text{rpm}}$$

Where: OHL = Overhung Load

hp = Horsepower

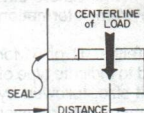
Fc = Load Connection Factor: Sprocket or synchronous belt = 1.0, machined pinion and gear = 1.25 V-belt = 1.5, flat belt = 2.5

Lf = Load Location Factor: for high speed shaft see Table 3. For low speed shaft see Table 4. (See additional instructions to follow.)

PD = Pitch Diameter.

rpm = Revolutions Per Minute.

**Location of Load Centerline**—To minimize overhung load and increase bearing life, load centerline should be located as close to the reducer seal as possible. For many applications, the unit will accommodate more overhung load than that which is published. Ratings have been established considering the most unfavorable conditions that will be encountered.



**Low Speed Shaft**—Using the formula above, calculate the low speed shaft OHL. The Fc values (Load Connection Factors) are shown above with the formula information. The Lf values (Load Location Factors) are tabulated in Table 4, based on distance from centerline of load to reducer seal. Compare the calculated OHL results with published values in Table 8. If they exceed those published, consult factory or consider the next larger unit.

**Low Speed Shaft OHL Example**—An application requiring 10 hp is driven by a size DR300—17.09 unit with 100 rpm output. A 20 tooth double strand 80 chain sprocket with a 6.392" P.D. is mounted on the reducer low speed shaft with load centered 2" from the reducer seal. Calculate using the OHL formula:

$$\text{OHL} = \frac{126,000 \times 10 \times 1.0 \times 1.05}{6.392 \times 100} = 2,070 \text{ lbs.}$$

Referring to top portion of Table 8 note that the overhung load capacity for a size 300 unit @ 100 rpm is 3,890 pounds and is satisfactory for this selection.

## High Speed Shaft Minimum Sheave Diameter

Calculate minimum sheave diameter for high speed shaft using V-belt drives.

**Step 1:** Determine load location factor from Table 3, page G4-17.

**Step 2:** Determine sheave size factor from Table 5, page G4-18. If you do not know what direction the input shaft will turn, assume counter clockwise direction.

**Step 3:** Determine minimum recommended sheave diameter for the drive motor you are using from Table 6 or 7, page G4-19.

**Step 4:** Insert the value found in Step 1, 2, and 3 into the formula below to calculate your minimum sheave diameter.

**High Speed shaft minimum sheave = Load Location factor X Sheave size factor X Motor recommended sheave**

**Note:** Make sure the sheave used on the high speed shaft of the reducer is not less than the one calculated.

The use of a smaller sheave will cause overhung load to be excessive.



## Order Instructions

Once the TXM Concentric Shaft Reducer has been selected from information published in this bulletin, ordering is relatively simple by referring to the nomenclature diagram. (If selection cannot be made from information herein, see note below.)

First digit indicates unit reduction (either D or T, for Double or Triple). Second digit is coded to indicate type of drive. Next 3 or 4 digits represent unit size, followed by ratio. Example shows a triple reduction size 300 reducer with a 70.6:1 ratio, ordered as a TR300—70.6 TXM Concentric Shaft Reducer.

**Prices**—Request separate list price sheet and related discount schedules.

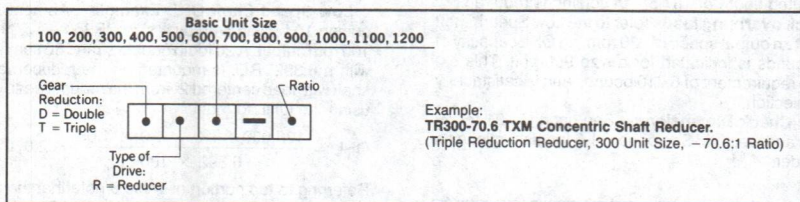
**Note**—If selection cannot be made from information herein, technical assistance is available to recommend

drives for new or existing applications. Submit full details to RELIANCE.

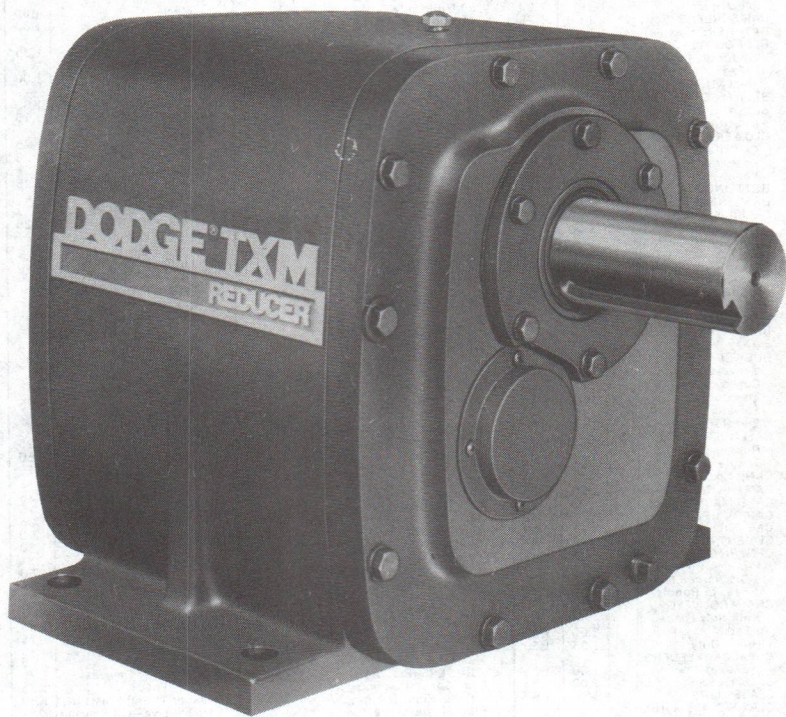
**Prime Mover:** 1. Type (motor, engine). 2. Horsepower Rating. 3. Speed (State if speed is constant or variable)

**Driven Machine:** 1. Kind (Centrifugal Fan, Hammer Mill, etc.) 2. Horsepower Load. 3. Speed. 4. Service (hrs./day and reversals/min., if required.)

**Shaft Connections:** 1. State whether coupling, sheave, sprocket, pinion, etc. (Give type and diameter of sheave, sprocket or pinion and shaft diameter required when using a coupling.) 2. Specify Thrust Load, if any. 3. Specify both high and low speed Overhung Loads. Indicate input and output speed that reducer will be required to handle and mounting position if different than horizontal foot mounted. Also specify ambient temperatures.



Bucket Elevator Drive





## Table 2—Service Factors

Application	Service		Application	Service		Application	Service	
	10 Hrs./Day	24 Hrs./Day		10 Hrs./Day	24 Hrs./Day		10 Hrs./Day	24 Hrs./Day
<b>AGITATORS</b>			<b>Briquette Machines</b>	1.75	2.00	<b>FANS</b>		
Pure Liquids	1.00	1.25	Clay Working Machinery	1.25	1.50	Centrifugal	1.00	1.25
Liquids & Solids	1.25	1.50	Pug Mills	1.25	1.50	Cooling Towers	†	†
Liquids—Variable Density	1.25	1.50	<b>COLLECTORS (Sewage)</b>	1.00	1.25	Forced Draft		1.25
<b>APRON CONVEYORS</b>			<b>COMPRESSORS</b>			Induced Draft	1.25	1.50
Uniformly Loaded or Fed	1.00	1.25	Centrifugal	1.00	1.25	Large (Mine, etc.)	1.25	1.50
Heavy Duty	1.25	1.50	Lobe	1.25	1.50	Large Industrial	1.25	1.50
<b>APRON FEEDERS</b>	1.25	1.50	Reciprocating:			Light (Small Diameter)	1.00	1.25
<b>ASSEMBLY CONVEYORS</b>			Multi-Cylinder	1.25	1.50	<b>FEEDERS</b>		
Uniformly Loaded or Fed	1.00	1.25	Single Cylinder	1.75	2.00	Apron, Belt	1.25	1.50
Heavy Duty	1.25	1.50	<b>CONCRETE MIXERS</b>			Disc	1.00	1.25
<b>BARGE HAUL PULLERS</b>	1.75	2.00	Continuous	1.25	1.50	Reciprocating	1.75	2.00
<b>BARKING</b>			Intermittent	1.25	1.50	Screw	1.25	1.50
Drums (coupling connected)			<b>CONVEYORS—Uniformly Loaded or Fed:</b> Apron, Assembly, Belt, Bucket, Chain, Flight, Oven, Screw	1.00	1.25	<b>FLIGHT</b>		
Mechanical		2.00	<b>CONVEYORS—Heavy Duty</b>			Conveyors, Uniform	1.00	1.25
<b>BAR SCREENS (Sewage)</b>	1.00	1.25	Not Uniformly Fed:			Conveyors, Heavy	1.25	1.50
<b>BATCHERS (Textile)</b>	1.25	1.50	Apron, Assembly, Belt, Bucket, Chain, Flight, Oven, Screw	1.25	1.50	<b>FOOD INDUSTRY</b>		
<b>BELT CONVEYORS</b>			<b>CONVEYORS—Severe Duty</b>			Beet Slicers	1.25	1.50
Uniformly Loaded or Fed	1.00	1.25	Live Roll	†	†	Bottling, Can Filling		
Heavy Duty	1.25	1.50	Reciprocating, Shaker	1.75	2.00	Mach.	1.00	1.25
<b>BELT FEEDERS</b>	1.25	1.50	<b>COOKERS (Brewing &amp; Distilling, Food)</b>	1.00	1.25	Cereal Cookers	1.00	1.25
<b>BENDING ROLLS (Machine)</b>	1.25	1.50	<b>COOLING TOWER FANS</b>	†	†	Dough Mixers, Meat Grinders	1.25	1.50
<b>BLOWERS</b>			<b>CRANES</b>			<b>GENERATORS (Not Welding)</b>	1.00	1.25
Centrifugal	1.00	1.25	Dry Dock Cranes	*	*	<b>GRAVITY DISCHARGE ELEVATORS</b>	1.00	1.25
Lobe	1.25	1.50	Main Hoist	1.00	1.25	<b>HAMMER MILLS</b>	1.75	2.00
Vane	1.00	1.25	Bridge and Trolley	†	†	<b>HOISTS (See Cranes)</b>		
<b>BOTTLING MACHINERY</b>	1.00	1.25	Travel	†	†	Heavy Duty	1.75	2.00
<b>BREWING &amp; DISTILLING</b>			<b>CRUSHERS</b>			Medium Duty	1.25	1.50
Bottling Machinery	1.00	1.25	One or Stone	1.75	2.00	Skip Hoist	1.25	1.50
Brew Kettles, Cont. Duty	1.00	1.25	Sugar	1.50	1.50	INDUCED DRAFT FANS	1.25	1.50
Can Filling Machines	1.00	1.25	<b>DEWATERING SCREENS (Sewage)</b>	1.25	1.50	<b>KILNS</b>	†	†
Cookers—Cont. Duty	1.00	1.25	<b>DISC FEEDERS</b>	1.00	1.25	<b>LAUNDRY WASHERS &amp; TUMBLERS</b>	1.25	1.50
Mash Tubs—Cont. Duty	1.00	1.25	<b>DISTILLING (See Brewing)</b>			<b>LINE SHAFTS</b>		
Scale Hoppers—Freight Starts	1.25	1.50	<b>DOUBLE ACTING PUMPS</b>	1.25	1.50	Driving Processing Equipment	1.25	1.50
<b>BRICK PRESS (Clay Working)</b>	1.75	2.00	2 or more cylinders	†	†	<b>LIVE ROLLS, Light</b>	1.00	1.25
<b>BRIQUETTE MACHINES (Clay Working)</b>	1.75	2.00	Single Cylinder	†	†	<b>LOBE BLOWERS OR COMPRESSORS</b>	†	†
<b>BUCKET</b>			<b>DOUGH MIXER (Food)</b>	1.25	1.50	<b>LOG HAULS (Lumber)</b>	1.25	1.50
Conveyors Uniform	1.00	1.25	<b>DRAW BENCH (Metal Mills) Carriage &amp; Main Drive</b>	1.25	1.50	Incline-well Type	1.75	1.75
Conveyors Heavy Duty	1.25	1.50	<b>DREDGES</b>			<b>LOOMS (Textile)</b>	1.25	1.50
Elevators Cont.	1.00	1.25	Cable Reels, Conveyors	1.25	1.50	<b>LUMBER INDUSTRY</b>		
Elevators Uniform	1.00	1.25	Cutter Head & Jig Drives	1.75	2.00	Barkers—Spindle Feed	1.25	1.50
Elevators Heavy Duty	1.25	1.50	Maneuvering Winches, Pumps	1.25	1.50	Barkers—Main Drive	1.75	1.75
<b>CALENDERS</b>			Screen Drives	1.75	2.00	Carriage Drive Conveyors	†	†
Rubber		1.50	Stackers, Utility	1.25	1.50	Burner	1.25	1.50
Textile	1.25	1.50	Winches	1.25	1.50	Main or Heavy Duty	1.50	1.50
<b>CANE KNIVES</b>	1.00	1.25	<b>DRY DOCK CRANES</b>	*	*	Main Log	1.75	2.00
<b>CAN FILLING MACHINES</b>	1.25	1.50	<b>DRYERS &amp; COOLERS (Mills, Rotary)</b>			Re-Saw Merry-Go-Round	1.25	1.50
<b>CARD MACHINES (Textile)</b>	1.75	2.00	<b>DYEING MACHINERY (Textile)</b>	1.25	1.50	Slab	1.75	2.00
<b>CAR DUMPERS</b>	1.25	1.50	<b>ELEVATORS</b>			Transfer	1.50	1.50
<b>CAR PULLERS</b>	1.25	1.50	Bucket—Uniform Load	1.00	1.25	Chains—Floor	1.50	1.50
<b>CEMENT KILNS</b>	†	†	Bucket—Heavy Duty	1.25	1.50	Chains—Green	1.50	1.75
<b>CENTRIFUGAL</b>			Bucket—Continuous	1.00	1.25	Cut-Off Saws—Chain & Drag	1.50	1.75
Blowers, Compressors, Discharge Elevators, Fans or Pumps	1.00	1.25	Centrifugal Discharge	1.00	1.25	Debarking Drums	1.75	2.00
<b>CHAIN CONVEYORS</b>			Escalators	1.00	1.25	Feeds—Edger	1.25	1.50
Uniformly Loaded or Fed	1.00	1.25	Freight	1.25	1.50	Feeds—Gang	1.75	1.75
Heavy Duty	1.25	1.50	Gravity Discharge	1.00	1.25	Feeds—Trimmer	1.25	1.50
<b>CHEMICAL FEEDERS</b>			Man Lifts, Passenger	†	†	Log Deck	1.75	1.75
(Sewage)	1.00	1.25	<b>EXTRUDERS (Plastic)</b>			Log Hauls—Incline, Well Type	1.75	1.75
<b>CLARIFIERS</b>	1.00	1.25	Film, Sheet, Coating	1.25		Log Turning Devices	1.75	1.75
<b>CLASSIFIERS</b>	1.25	1.50	Rods, Pipe, Tubing			Planer Feed	1.25	1.50
<b>CLAY WORKING IND.</b>			Blow Molders, Pre-plasticizers	1.50		Planer Tilting Devices	1.50	1.50
Brick Press	1.75	2.00				Rolls—Live—Off Bearing—Rail Cases	1.75	1.75

\* DRY DOCK CRANES (Hammerhead, Rotating and Whirler, Stationary or Moving), for ANY DURATION OF SERVICE: Main Hoist, Auxiliary Hoist, Boom (Lifting): 1.00; Rotating (Swing or Slew): 1.25; Tracking (Drive Wheels): 1.50.

† Consult RELIANCE.

▲ See Mills, Rotary.

Note: When mounting variable speed AC or DC motors, consult pages G4-56 & 57.

**Table 2 Service Factors (Continued)**

Application	Service		Application	Service		Application	Service	
	10 Hrs./Day	24 Hrs./Day		10 Hrs./Day	24 Hrs./Day		10 Hrs./Day	24 Hrs./Day
Sorting Table, Tipple	.125	1.50	Dryers—			Warming Mills		1.50
Hoist			Paper Mach. &	1.25		SAND MULLERS	1.25	1.50
Transfers—Chain &	1.50	1.75	Conveyor Type	1.25		SCREENS		
Craneway	1.25	1.50	Embossor	1.50		Air Washing	1.00	1.25
Tray Drives	↑	↑	Extruder			Rotary—Sand or Gravel	1.25	1.50
Veneer Lathe Drives			Fourdrinier Rolls—			Traveling Water Intake	1.00	1.25
MACHINE TOOLS			Lumpbreaker, Wire			SCREW CONVEYORS		
Auxiliary Drives	1.00	1.25	Turning, Dandy &			Uniform	1.00	1.25
Banding Rolls	1.25	1.50	Return Rolls	1.25		Heavy Duty or Feeder	1.25	1.50
Main Drives	1.25	1.50	Jordan	1.50		SCUM BREAKERS		
Notching Press (Belted)	↑	↑	Kiln Drive	1.25		(Sewage)	1.25	1.50
Plate Planers	1.75	2.00	Mt. Hope & Paper Rolls	1.50		SEWAGE DISPOSAL		
Punch Press (Geared)	1.75	2.00	Platter	1.25		Bar Screens	1.00	1.25
Tapping Machines	1.75	2.00	Presses (Felt & Suction)	1.50		Chemical Feeders	1.00	1.25
MANGLE (Textile)	1.25	1.50	Fulper, Vacuum Pumps	1.25		Collectors	1.00	1.25
MASH TUBS (Brewing &			Reel (Surface Type)	1.25		Dewatering Screens	1.25	1.50
Distilling)	1.00	1.25	Screeners—			Scum Breakers	1.25	1.50
MEAT GRINDERS (Food)	1.25	1.50	Chip, Rotary	1.50		Slow or Rapid Mixers	1.25	1.50
METAL MILLS			Vibrating	2.00		Thickeners	1.25	1.50
Draw Bench Carriages			Size Press	1.25		Vacuum Filters	1.25	1.50
& Main Drives	1.25	1.50	Super Calender	1.25		SHAKER CONVEYORS	1.75	2.00
Pinch, Dryer & Scrubber			Thickener & Washer—			SHEETERS (Rubber)		1.50
Rolls Reversing	↑	↑	AC Motor	1.50		SINGLE ACTING PUMP		
Slitters	1.25	1.50	DC Motor	1.25		1 or 2 Cylinders	↑	↑
Table Conveyors.			Wind & Unwind Stand	1.00		3 or more Cylinders	1.25	1.50
Non-Reversing			Winders (Surface Type)	1.25		SKIP HOIST	1.25	1.50
Group Drives	1.25	1.50	Yankee Dryers	1.25		SLAB PUSHERS	1.25	1.50
Individual Drives	1.75	2.00	PASSENGER ELEVATORS	↑	↑	SLITTERS (Metal)	1.25	1.50
Reversing	↑	↑	PEBBLE MILLS			SLUDGE COLLECTORS		
Wire Drawing &			PLATE PLANERS	1.75	2.00	(Sewage)	1.00	1.25
Flattening Machines	1.25	1.50	PRINTING PRESSES	↑	↑	SOAPERS (Textile)	1.25	1.50
Wire Winding Machines	1.25	1.50	PROPORTIONING PUMPS	1.25	1.50	SPINNERS (Textile)	1.25	1.50
MILLS, ROTARY			PUG MILLS (Clay)	1.25	1.50	STEERING GEARS	↑	↑
Ball and Rod Mills			PULLERS (Barge Haul)	1.75	2.00	STOKERS	1.00	1.25
with Spur Ring Gear		2.00	PUMPS			STONE CRUSHERS	1.75	2.00
with Helical Ring Gear		1.75	Centrifugal	1.00	1.25	SUGAR INDUSTRY		
Direct Connected		1.75	Proportioning	1.25	1.50	Cane Knives, Crushers,		
Cement Kilns, Dryers,			Reciprocating			Mills		1.50
Coolers, Pebble, Plain			Single Act., 3 or more			TABLE CONVEYORS (Non-		
& Wedge Bar Mills			Cyl.	1.25	1.50	Reversing)		
Tumbling Barrels	1.75	2.00	Double Act., 2 or	1.25	1.50	Group Drives	1.25	1.50
MIXER (Also see Agitators)			more Cyl.	↑	↑	Individual Drives	1.75	2.00
Concrete, Cont. & Int.	1.25	1.50	Single Act., 1 or 2 Cyl.	↑	↑	Reversing	↑	↑
Constant Density	1.00	1.25	Double Act., 1 Cyl.	↑	↑	TENTER FRAMES (Textile)	1.25	1.50
Variable Density	1.25	1.50	Rotary: Gear, Lobe,	1.00	1.25	TEXTILE INDUSTRY		
NAPPERS (Textile)	1.25	1.50	Vane			Batchers, Calenders	1.25	1.50
OIL INDUSTRY			PUNCH PRESSES	1.75	2.00	Card Machines	1.25	1.50
Chillers	1.25	1.50	(Gear Driven)			Dry Cans, Dryers	1.25	1.50
Oil Well Pumping	↑	↑	RECIPROCATING			Dyeing Machinery	1.25	1.50
Paraffin Filter Press	1.25	1.50	Conveyors, Feeders	1.75	2.00	Knitting Machinery	↑	↑
Rotary Kilns	1.25	1.50	RECIPROCATING COM-			Looms, Mangles,	1.25	1.50
ORE CRUSHERS	1.75	2.00	PRESSORS			Nappers, Pads	↑	↑
OVEN CONVEYORS			Multi-Cylinder	1.25	1.50	Range Drives	1.25	1.50
Uniform	1.00	1.25	Single Cylinder	1.75	2.00	Slashers, Soapers,	↑	↑
Heavy Duty	1.25	1.50	REVERSING DIRECTION	↑	↑	Spinners	1.25	1.50
PAPER MILLS ★			APPLICATION	↑	↑	Tenter Frames,		
Agitator (Mixer)	1.50		ROD MILLS	↑	↑	Washers, Winders	1.25	1.50
Agitator for Pure Liquids	1.25		Pumps	1.00	1.25	THICKENERS (Sewage)	1.25	1.50
Barking Drums, Barkers			Screens (Sand or Gravel)	1.25	1.50	TUMBLING BARRELS	1.75	2.00
—Mech.	2.00		RUBBER & PLASTICS			VACUUM FILTERS		
Beater	1.50		INDUSTRIES			(Sewage)	1.25	1.50
Breaker Stack	1.25		Calenders		1.50	VANE BLOWERS	1.00	1.25
Calender	1.25		Crackers		2.00	WINCHES (Dredges)	1.25	1.50
Chipper	2.00		Laboratory Equipment	1.25	1.50	WINDERS (Textile)	1.25	1.50
Chip Feeder	1.50		Mills (2 on line)		1.25	WIRE	↑	↑
Coating Rolls	1.25		(3 on line)		1.75	Drawing Machines	1.25	1.50
Conveyors—			Mixing Mills		1.75	Winding Machines	1.25	1.50
Chip, Bark, Chemical	1.25		Refiners & Sheeters		1.50			
Log (incl. Slab)	2.00		Tire Building Machines	↑	↑			
Couch Rolls	1.25		Tire & Tube Press	↑	↑			
Cutter	2.00		Openers	↑	↑			
Cylinder Molds	1.25		Tubers & Strainers		1.50			

\* Service factors for paper mill applications are applied to nameplate rating of electric motor at the motor rated base speed—consistent with TAPPI Standards.

■ When a super calender operates over a speed range of part constant hp and torque and the constant hp speed range is greater than 1.5:1, use a service factor of 1.0 at base speed. When operating at constant torque over the entire speed range or when the constant hp speed range is less than 1.5:1, a 1.25 factor should be applied.

♦ Using anti-friction bearings only.  
† Consult RELIANCE.

▲ See Mills, Rotary.

Note: When mounting variable speed AC or DC motors, consult pages G4-56 & 57.

Note: It is recommended that class numbers for special applications be agreed upon by user and factory when variations of the table may be required. Special conditions can be any special type of prime mover,

starting or stopping conditions, system conditions, ambient conditions, lubrications, overloads, overspeeds, brake equipped applications, high inertia and reversing loads.



# Selection

## TXM Concentric Shaft Speed Reducers

### 3600, 2500, 1750 RPM INPUT INPUT HORSEPOWER RATINGS

High Speed Shaft rpm	Nominal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Rating Data @ 1.0 Service Factor for Basic Unit Size of:											
				100	200	300	400	500	600	700	800	900	1000	1100	1200
3600	5.06	711.5	DOUBLE	11.7	33.0	55.3	106	159	#	#	#	#	#	#	#
	6.20	580.6		9.99	27.2	50.5	94.7	141	247	#	#	#	#	#	#
	7.59	474.3		8.56	24.0	45.6	83.8	127	217	#	#	#	#	#	#
	9.30	387.1		7.56	20.2	39.7	74.2	113	197	240	#	#	#	#	#
	11.39	316.1		6.64	17.1	35.8	63.4	98.3	171	211	#	#	#	#	#
	13.95	258.1		5.80	14.8	30.8	55.3	86.6	146	182	#	#	#	#	#
	17.09	210.6		5.00	12.7	26.8	47.8	74.8	125	156	#	#	#	#	#
	20.93	172.0		4.47	11.2	22.7	40.5	63.0	110	132	#	#	#	#	#
	25.63	140.5		3.90	9.70	19.7	35.3	53.4	94.3	107	#	#	#	#	#
	31.39	114.7		3.49	8.28	16.6	30.5	44.1	73.2	84.4	#	#	#	#	#
	38.44	93.7	TRIPLE	2.99	5.39	8.81	15.4	23.4	39.1	53.7	#	#	#	#	#
	47.08	76.5		2.68	5.22	8.60	15.8	22.6	36.4	49.5	#	#	#	#	#
	57.66	62.4		2.38	4.98	8.14	15.4	19.0	33.8	44.5	#	#	#	#	#
	70.62	51.0		2.12	4.54	7.80	14.9	18.4	28.2	38.1	#	#	#	#	#
	86.50	41.6		1.86	3.85	7.28	13.3	17.6	26.1	31.3	#	#	#	#	#
	105.9	34.0		1.62	3.22	6.79	11.1	15.4	24.2	26.3	#	#	#	#	#
	129.7	27.8		1.45	2.77	5.57	9.00	12.5	22.4	21.4	#	#	#	#	#
	158.9	22.7		1.17	2.32	4.50	7.50	10.5	18.7	17.3	#	#	#	#	#
	194.6	18.5		0.985	1.90	3.64	6.18	8.56	15.3	13.6	#	#	#	#	#
2500	5.06	494.1	DOUBLE	9.18	25.6	43.4	83.1	125	213	283	411	#	#	#	#
	6.20	403.2		7.83	21.1	39.6	74.3	111	194	246	353	#	#	#	#
	7.59	329.4		6.71	18.6	35.8	64.9	99.6	167	211	302	397	#	#	#
	9.30	268.8		5.93	15.6	31.1	57.5	88.6	152	182	256	346	554	#	#
	11.39	219.5		5.21	13.2	28.1	49.1	79.4	130	161	225	300	478	#	#
	13.95	179.2		4.55	11.5	24.2	42.8	63.6	110	136	188	248	390	#	#
	17.09	146.3		3.92	9.84	21.0	37.8	53.5	92.8	109	162	217	325	#	#
	20.93	119.4		3.51	8.68	17.8	31.4	45.3	80.0	93.6	137	189	265	#	#
	25.63	97.5		3.06	7.51	15.4	27.4	37.1	67.4	75.1	112	160	236	#	#
	31.39	79.6		2.74	6.41	13.0	22.7	30.6	50.8	57.4	92	137	158	#	#
	38.44	65.0	TRIPLE	2.34	4.23	6.91	12.1	18.4	30.6	41.6	78.6	82	122	#	#
	47.08	53.1		2.10	4.02	6.74	12.4	17.7	28.5	38.3	66.9	79	113	#	#
	57.66	43.4		1.87	3.63	6.38	12.2	14.9	26.5	33.8	55.0	72.4	103	#	#
	70.62	35.4		1.47	3.15	6.12	11.0	14.4	22.1	26.5	43.5	64.4	90.1	#	#
	86.50	28.9		1.29	2.98	5.80	9.26	12.8	20.5	22.8	36.9	47.7	72.3	#	#
	105.9	23.6		1.01	2.49	4.76	7.74	10.7	17.7	18.3	31.5	45.3	62.7	#	#
	129.7	19.3		0.813	2.15	3.87	6.25	8.68	15.6	15.2	26.3	37.7	53.6	#	#
	158.9	15.7		0.684	1.80	3.13	5.21	7.30	13.0	12.3	21.8	30.8	43.5	#	#
	194.6	12.8		0.684	1.47	2.53	4.30	5.94	10.6	9.62	18.3	26.3	35.1	#	#
1750	2.25	777.8	DOUBLE	12.0	22.8	35.2	67.0	107	169	†	†	†	†	†	†
	2.75	636.4		10.7	20.3	32.2	58.3	92.1	151	†	†	†	†	†	†
	3.37	519.3		9.42	18.6	29.1	50.8	81.2	130	†	†	†	†	†	†
	4.13	423.7		8.46	15.0	25.3	45.3	72.0	118	†	†	†	†	†	†
	5.06	345.8		7.46	21.1	35.2	67.7	104	163	220	320	418	672	701	#
	6.20	282.3		6.40	18.3	32.2	58.5	92.1	145	192	276	363	572	604	881
	7.59	230.6		5.59	15.9	29.1	50.6	81.2	124	159	232	309	469	518	730
	9.30	188.2		4.81	13.9	25.3	44.8	68.5	112	137	190	269	393	433	633
	11.39	153.6		4.22	11.9	22.8	38.3	56.7	96.0	115	160	234	339	370	522
	13.95	125.4	TRIPLE	3.68	9.91	19.6	33.4	48.4	80.8	96.5	134	193	277	312	440
	17.09	102.4		3.18	8.05	17.1	28.8	40.4	67.9	77.9	115	166	231	258	365
	20.93	84.8		2.84	6.74	14.5	24.4	32.8	60.3	64.6	97.1	140	185	219	312
	25.63	68.3		2.48	5.86	12.5	20.5	27.9	50.7	52.3	80.1	114	167	183	261
	31.39	55.8		2.21	4.99	10.8	16.9	22.9	41.6	41.0	65.8	97.8	111	148	212
	38.44	45.5		1.85	3.42	5.58	9.85	14.4	24.9	33.2	56.9	63.8	95.3	132	188
	47.08	37.2		1.70	3.29	5.35	9.76	14.0	23.2	29.2	48.0	61.4	88.3	112	159
	57.66	30.4		1.52	2.75	5.17	9.54	11.7	21.4	23.6	38.7	56.4	80.0	93.0	133
	70.62	24.8		1.30	2.28	4.95	8.15	11.3	18.0	18.5	31.2	48.7	66.5	75.1	107
	86.50	20.2		1.05	1.94	4.01	6.84	9.43	15.1	15.9	26.3	38.0	50.5	63.7	90.2
	105.9	16.5		0.850	1.61	3.30	5.63	7.83	13.0	12.8	22.6	32.7	43.6	51.6	73.8
	129.7	13.5		0.706	1.37	2.67	4.56	6.36	11.3	10.6	18.8	27.2	36.8	43.1	62.4
	158.9	11.0		0.569	1.17	2.22	3.81	5.34	9.57	8.59	15.5	22.2	30.4	35.3	51.5
	194.6	9.0		0.479	0.96	1.81	3.14	4.37	7.81	6.74	13.1	19.0	24.6	28.1	41.3

NOTE—Mechanical hp ratings shown in shaded areas exceed the unit thermal hp ratings. Refer to table on page G4-16.

▲ Established AGMA ratios,  $\pm 4\%$ . For actual ratios see Table 9, page G4-20.

† Ratio Not Available.

# Speed Limits Exceeded, consult RELIANCE.

**3600, 2500, 1750 RPM INPUT  
OUTPUT TORQUE RATINGS (lb.-in.)**  
Multiply Value Shown by 1000

	Nominal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Rating Data @ 1.0 Service Factor for Basic Unit Size of:											
				100	200	300	400	500	600	700	800	900	1000	1100	1200
600	5.06	711.5	DOUBLE	0.975	2.73	4.74	8.85	13.5	#	#	#	#	#	#	#
	6.20	580.6		1.04	2.89	5.23	10.1	15.0	25.4	#	#	#	#	#	#
	7.59	474.3		1.12	3.01	5.71	10.9	16.4	28.2	#	#	#	#	#	#
	9.30	387.1		1.19	3.13	6.31	11.4	17.7	30.1	36.8	#	#	#	#	#
	11.39	316.1		1.26	3.33	6.71	12.1	19.0	32.2	39.0	#	#	#	#	#
	13.95	258.1		1.36	3.49	7.21	12.7	20.1	34.7	41.2	#	#	#	#	#
	17.09	210.6		1.47	3.70	7.62	13.5	21.2	36.4	44.1	#	#	#	#	#
	20.93	172.0		1.57	3.83	8.01	14.3	22.2	37.9	44.9	#	#	#	#	#
	25.63	140.5		1.69	4.08	8.34	15.1	22.7	39.3	45.0	#	#	#	#	#
	31.39	114.7		1.80	4.33	8.63	16.1	23.3	37.9	45.3	#	#	#	#	#
600	38.44	93.7	TRIPLE	1.86	3.54	5.49	10.0	15.0	24.8	33.6	#	#	#	#	#
	47.08	76.5		2.08	4.06	6.50	12.6	17.8	29.1	37.3	#	#	#	#	#
	57.66	62.4		2.22	4.80	7.79	14.5	17.8	33.1	41.3	#	#	#	#	#
	70.62	51.0		2.40	5.47	8.82	17.4	21.2	32.4	45.2	#	#	#	#	#
	86.50	41.6		2.60	5.63	10.3	18.7	24.3	37.7	43.1	#	#	#	#	#
	105.9	34.0		2.81	5.82	11.6	19.2	25.9	42.9	45.2	#	#	#	#	#
	129.7	27.8		3.02	5.95	11.8	19.5	26.2	47.0	44.3	#	#	#	#	#
	158.9	22.7		3.04	6.04	11.5	19.7	26.6	47.4	44.3	#	#	#	#	#
	194.6	18.5		3.04	6.16	11.4	19.9	26.9	48.2	44.4	#	#	#	#	#
500	5.06	494.1	DOUBLE	1.12	3.13	5.31	10.2	15.3	26.1	34.7	50.3	#	#	#	#
	6.20	403.2		1.17	3.17	5.94	11.1	16.7	29.1	36.9	53.0	#	#	#	#
	7.59	329.4		1.23	3.42	6.58	11.9	18.3	30.7	38.8	55.5	72.9	#	#	#
	9.30	268.8		1.33	3.51	7.00	12.9	19.9	34.2	41.0	57.6	77.9	125	#	#
	11.39	219.5		1.44	3.64	7.75	13.5	21.9	35.8	44.4	62.0	82.7	132	#	#
	13.95	179.2		1.54	3.88	8.17	14.4	21.5	37.1	45.9	63.5	83.7	132	#	#
	17.09	146.3		1.62	4.07	8.69	15.6	22.1	38.4	45.1	67.0	89.8	134	#	#
	20.93	119.4		1.78	4.40	9.02	15.9	22.9	40.5	47.4	69.4	95.7	134	#	#
	25.63	97.5		1.90	4.66	9.55	17.0	23.0	41.8	46.6	69.5	99.2	146	#	#
	31.39	79.6		2.08	4.87	9.88	17.2	23.2	38.6	43.6	69.9	104	120	#	#
500	38.44	65.0	TRIPLE	2.09	3.77	6.16	10.8	16.4	27.3	37.1	70.1	73.3	109	#	#
	47.08	53.1		2.29	4.39	7.36	13.5	19.3	31.1	41.8	73.1	86.2	123	#	#
	57.66	43.4		2.50	4.85	8.53	16.3	19.9	35.4	45.2	73.6	96.8	138	#	#
	70.62	35.4		2.41	5.16	10.0	18.0	23.6	36.2	43.4	71.2	105	148	#	#
	86.50	28.9		2.59	5.98	11.6	18.6	25.7	41.1	45.7	74.0	95.7	145	#	#
	105.9	23.6		2.78	6.12	11.7	19.0	26.3	43.5	44.9	77.4	111	154	#	#
	129.7	19.3		3.04	6.47	11.6	18.8	26.1	46.9	45.7	79.1	113	161	#	#
	158.9	15.7		3.00	6.63	11.5	19.2	26.9	47.9	45.3	80.3	114	160	#	#
	194.6	12.8		3.09	6.63	11.4	19.4	26.8	47.8	43.4	82.6	119	158	#	#
1750	2.25	777.8	DOUBLE	0.915	1.72	2.82	5.21	8.32	13.3	†	†	†	†	†	†
	2.75	636.4		1.02	1.96	3.12	5.76	8.96	14.3	†	†	†	†	†	†
	3.37	519.3		1.12	2.12	3.41	6.15	9.55	15.5	†	†	†	†	†	†
	4.13	423.7		1.21	2.12	3.76	6.48	10.3	16.6	†	†	†	†	†	†
	5.06	345.8		1.28	3.59	6.20	11.6	18.2	28.6	38.0	58.2	75.3	123	124.7	#
	6.20	282.3		1.37	3.99	6.86	12.8	20.2	30.7	40.7	62.0	79.4	126	131.4	192.4
	7.59	230.6		1.50	4.10	7.50	13.5	21.5	33.1	41.9	64.6	84.3	131	138.8	195.4
	9.30	188.2		1.55	4.44	8.27	14.2	22.1	35.1	43.2	66.3	88.3	134	143.2	200.6
	11.39	153.6		1.65	4.76	8.80	15.1	22.6	37.2	43.7	67.6	89.3	137	147.1	206.3
	13.95	125.4		1.78	4.81	9.44	15.8	23.1	39.5	44.9	69.6	101	141	149.5	211.5
1750	17.09	102.4	TRIPLE	1.93	4.92	10.0	16.7	23.5	40.7	45.3	70.9	103	144	154.1	216.2
	20.93	83.6		2.05	4.74	10.5	17.8	23.8	42.8	45.2	72.0	105	137	155.8	221.4
	25.63	68.3		2.22	5.07	10.9	18.1	24.4	43.5	45.2	73.5	107	149	159.6	226.0
	31.39	55.8		2.35	5.37	11.3	18.3	24.9	44.3	45.3	77.2	108	123	162.9	230.5
	38.44	45.5		2.36	4.63	7.16	13.2	19.0	32.5	42.7	78.1	87.2	135	175.2	249.0
	47.08	37.2		2.71	5.26	8.31	16.0	22.7	38.1	45.2	79.4	102	148	177.8	251.0
	57.66	30.4		2.92	5.45	10.0	18.4	22.5	43.1	45.1	79.1	117	163	181.2	256.6
	70.62	24.8		3.03	5.65	11.5	19.6	25.8	42.5	45.1	81.7	122	168	183.6	258.2
	86.50	20.2		3.02	5.84	11.6	19.8	26.8	44.9	45.0	82.9	120	159	190.0	263.8
	105.9	16.5		3.03	5.98	11.6	20.0	27.1	47.4	45.3	84.4	123	169	190.0	267.0
1750	129.7	13.5	TRIPLE	3.03	6.05	11.7	20.3	27.5	48.8	45.2	84.6	124	169	190.0	270.5
	158.9	11.0		3.04	6.27	11.6	20.6	27.8	49.9	45.2	86.1	126	170	190.0	273.4
	194.6	9.0		3.04	6.39	11.7	20.8	28.2	50.6	45.3	87.2	128	169	190.0	274.6

NOTE—Torque ratings shown in shaded areas exceed the unit thermal hp ratings. Convert Torque (without service factor) to hp, per the formula given on page G4-4, and refer to table on page G4-16.

Established AGMA ratios, ± 4%. For actual ratios see Table 9, page G4-20.

Ratio Not Available.

Speed Limits Exceeded, consult RELIANCE.



# Selection

## TXM Concentric Shaft Speed Reducers

### 1450, 1170, 870 RPM INPUT INPUT HORSEPOWER RATINGS

High Speed Shaft rpm	Nominal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Rating Data @ 1.0 Service Factor for Basic Unit Size of:													
				100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
1450	2.25	644.4	DOUBLE	10.5	20.1	31.1	58.7	84.5	140	†	†	†	†	†	†	†	†
	2.75	527.3		9.38	17.9	28.4	51.1	78.3	125	†	†	†	†	†	†	†	†
	3.37	430.3		8.26	16.4	25.7	44.5	71.6	108	†	†	†	†	†	†	†	†
	4.13	351.1		7.42	13.2	22.3	39.7	63.2	97.8	†	†	†	†	†	†	†	†
	5.06	286.6		6.41	17.4	31.1	59.7	86.2	135	193	280	353	563	614	875	†	†
	6.20	233.9		5.36	14.4	28.4	51.3	78.3	120	161	233	318	479	528	740	†	†
	7.59	191.0		4.76	12.7	25.7	44.4	67.5	103	134	194	265	393	443	622	†	†
	9.30	155.9		4.22	10.6	22.3	39.2	56.8	92.8	114	158	233	329	368	537	†	†
	11.39	127.3		3.70	9.39	20.1	33.6	47.0	79.5	98.6	134	201	284	314	442	†	†
	13.95	103.9		3.23	7.85	17.3	29.3	49.1	66.9	80.9	112	162	232	264	373	†	†
	17.09	84.8		2.79	6.72	15.1	24.8	33.5	56.3	64.5	96.2	139	194	218	308	†	†
	20.93	69.3		2.49	5.91	12.8	20.2	27.2	50.0	53.5	81.3	117	153	185	263	†	†
	25.63	56.6		2.17	5.14	11.0	17.0	23.1	42.0	43.4	67.0	95.6	140	155	219	†	†
	31.39	46.2		1.94	4.23	9.05	14.0	19.0	34.5	34.0	55.0	81.7	92.0	125	178	†	†
1170	38.44	37.7	TRIPLE	1.63	3.02	4.81	8.70	12.7	22.0	29.1	47.5	55.9	83.6	88.8	118	158	†
	47.08	30.8		1.49	2.73	4.72	8.61	12.4	20.5	24.2	40.2	53.9	80.9	89.9	118	134	†
	57.66	25.1		1.30	2.28	4.56	8.26	10.3	18.7	19.6	32.3	46.8	67.7	73.5	111	†	†
	70.62	20.5		1.08	1.89	4.15	6.75	9.23	15.2	15.4	26.1	40.4	55.5	63.2	90	†	†
	86.50	16.8		0.870	1.61	3.32	5.67	7.81	12.5	13.2	22.0	31.5	41.9	52.6	75	†	†
	105.9	13.7		0.704	1.33	2.73	4.66	6.49	10.8	10.6	18.9	27.3	36.1	42.8	61	†	†
	129.7	11.2		0.555	1.14	2.21	3.78	6.27	9.36	8.80	15.7	22.7	30.5	35.7	52	†	†
	158.9	9.1		0.471	0.969	1.84	3.16	4.42	7.93	7.12	12.9	18.6	25.2	29.3	43	†	†
	194.6	7.5		0.397	0.784	1.50	2.60	3.62	6.47	5.57	10.9	15.8	20.4	23.4	34	†	†
	2.25	520.0	DOUBLE	9.18	18.8	27.4	46.4	74.3	116	†	†	†	†	†	†	†	†
	2.75	425.5		8.16	15.8	25.0	40.3	68.5	104	†	†	†	†	†	†	†	†
	3.37	347.7		7.20	14.2	22.6	35.1	62.9	89.2	†	†	†	†	†	†	†	†
	4.13	283.3		6.29	11.7	19.7	31.2	55.4	80.8	†	†	†	†	†	†	†	†
	5.06	231.2		5.59	15.6	27.4	42.4	74.3	111	158	230	285	462	522	730	†	†
	6.20	188.7		4.91	13.6	25.0	44.2	67.6	94.4	132	191	250	427	438	616	†	†
	7.59	154.2		4.22	11.8	22.6	38.2	56.9	85.2	109	130	189	270	304	447	†	†
	9.30	125.8		3.73	10.0	19.7	33.8	47.8	77.0	94.0	130	182	233	260	366	†	†
	11.39	102.7		3.28	8.09	17.7	28.9	39.5	66.3	79.2	109	162	203	218	309	†	†
	13.95	83.9		2.87	6.76	15.3	25.0	33.7	56.2	66.3	91.5	133	190	218	255	†	†
	17.09	68.5		2.47	5.79	13.3	20.7	28.1	46.8	54.3	79.0	114	158	179	255	†	†
	20.93	55.9		2.20	5.09	10.7	16.8	22.9	41.5	46.0	66.5	95.7	124	151	217	†	†
	25.63	45.6		1.92	4.42	8.940	14.2	19.3	35.3	38.0	54.8	78.3	113	126	180	†	†
	31.39	37.3		1.72	3.77	7.300	11.7	15.9	29.0	30.4	45.1	66.9	74.2	103	145	†	†
870	38.44	30.4	TRIPLE	1.36	2.62	4.160	7.630	11.0	19.3	26.1	38.9	48.1	71.8	91.4	130	†	†
	47.08	24.9		1.27	2.27	4.080	7.460	10.7	18.0	22.5	32.9	46.3	66.4	72.4	109	†	†
	57.66	20.3		1.05	1.90	3.690	6.860	8.960	15.2	18.4	27.0	38.8	55.6	60.1	91	†	†
	70.62	16.6		0.868	1.57	3.340	5.570	7.660	12.5	14.8	21.3	33.3	44.7	51.4	73	†	†
	86.50	13.5		0.705	1.33	2.680	4.690	6.460	10.5	12.8	18.0	25.4	33.8	42.7	61	†	†
	105.9	11.0		0.569	1.10	2.210	3.870	5.380	8.930	10.4	15.5	22.0	29.2	34.6	50	†	†
	129.7	9.0		0.472	0.947	1.780	3.120	4.370	7.790	8.73	12.9	18.6	24.6	28.7	42	†	†
	158.9	7.4		0.380	0.800	1.480	2.610	3.650	6.550	7.15	10.6	15.2	20.3	23.5	35	†	†
	194.6	6.0		0.321	0.660	1.210	2.160	2.990	5.340	5.71	8.99	13.0	16.5	18.9	28	†	†
	2.25	386.7	DOUBLE	7.46	14.0	22.5	34.5	55.2	86.3	†	†	†	†	†	†	†	†
	2.75	316.4		6.63	11.9	20.3	30.0	50.9	77.3	†	†	†	†	†	†	†	†
	3.37	258.2		5.62	10.6	17.8	26.1	46.8	67.3	†	†	†	†	†	†	†	†
	4.13	210.7		4.68	9.41	14.9	23.2	41.2	60.1	†	†	†	†	†	†	†	†
	5.06	171.9		4.54	12.7	22.5	42.6	55.2	82.5	120	174	199	357	403	567	†	†
	6.20	140.3		3.99	11.1	20.5	35.9	50.3	73.9	99.7	144	186	330	339	477	†	†
	7.59	114.6		3.43	9.59	18.5	31.0	42.3	63.4	82.2	120	156	248	283	398	†	†
	9.30	93.5		3.03	8.13	16.2	26.7	35.5	57.3	71.2	97.9	140	208	233	343	†	†
	11.39	76.4		2.67	6.58	14.5	22.0	29.4	49.3	60.0	82.5	121	180	198	279	†	†
	13.95	62.4		2.33	5.49	11.9	18.6	25.1	41.8	50.2	69.2	98.6	147	167	235	†	†
	17.09	50.9		2.01	4.70	9.89	15.4	20.9	34.8	41.2	59.6	85.7	122	137	193	†	†
	20.93	41.6		1.79	4.14	7.96	12.5	17.0	30.9	34.8	50.3	72.1	92.2	116	165	†	†
	25.63	33.9		1.56	3.48	6.65	10.6	14.4	26.2	28.7	41.4	58.9	84.0	96.7	137	†	†
	31.39	27.7		1.40	2.80	5.43	8.70	11.8	21.6	23.0	34.0	50.4	55.2	78.4	111	†	†
870	38.44	22.6	TRIPLE	1.01	1.97	3.41	6.08	9.03	15.8	19.8	29.5	39.0	58.4	68.9	98	†	†
	47.08	18.5		0.944	1.68	3.35	6.08	8.13	13.5	17.0	24.9	35.0	49.9	55.0	83	†	†
	57.66	15.1		0.781	1.41	2.94	5.10	6.68	11.3	14.0	20.4	29.3	41.3	45.5	68	†	†
	70.62	12.3		0.645	1.17	2.48	4.14	5.70	9.29	11.2	16.2	25.1	33.3	38.6	55	†	†
	86.50	10.1		0.524	0.898	1.99	3.49	4.80	7.81	9.70	13.6	18.9	25.1	31.7	46	†	†
	105.9	8.2		0.423	0.818	1.64	2.88	4.00	6.64	7.86	11.7	16.4	21.7	25.7	37	†	†
	129.7	6.7		0.351	0.704	1.32	2.32	3.25	5.79	6.55	9.75	14.1	18.3	21.4	31	†	†
	158.9	5.5		0.282	0.594	1.10	1.94	2.71	4.87	5.30	7.97	11.4	15.1	17.7	26	†	†
	194.6	4.5		0.239	0.490	0.900	1.61	2.22	3.97	4.14	6.63	9.80	12.2	14.0	21	†	†

NOTE—Mechanical hp ratings shown in shaded areas exceed the unit thermal hp ratings. Refer to table on page G4-16.

▲ Established AGMA ratios, ±4%. For actual ratios see Table 9, page G4-20.

† Ratio Not Available.

**1450, 170, 870 RPM INPUT**  
**OUTPUT TORQUE RATINGS (lb.-in.)**  
 Multiply Value Shown by 1000

High Speed Shaft rpm	Nominal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Rating Data @ 1.0 Service Factor for Basic Unit Size of:												
				100	200	300	400	500	600	700	800	900	1000	1100	1200	
1450	2.25	644.4	DOUBLE	0.986	1.89	2.92	5.51	7.93	13.1	†	†	†	†	†	†	†
	2.75	527.3		1.08	2.05	3.26	5.86	8.98	14.3	†	†	†	†	†	†	
	3.37	430.3		1.16	2.31	3.61	6.26	10.1	15.2	†	†	†	†	†	†	
	4.13	351.1		1.28	2.27	3.84	6.84	10.9	16.9	†	†	†	†	†	†	
	5.06	286.6		1.35	3.67	6.57	12.6	18.2	28.5	40.7	59.1	74.5	119	132.2	189.0	
	6.20	233.9		1.39	3.73	7.35	13.3	20.3	31.0	41.7	60.3	82.3	124	138.9	194.8	
	7.59	191.0		1.51	4.02	8.14	14.1	21.4	32.6	42.4	61.4	83.9	124	142.8	201.2	
	9.30	155.9		1.64	4.11	8.65	15.2	22.0	36.0	44.2	61.3	90.4	128	147.3	205.8	
	11.39	127.3		1.76	4.46	9.55	16.0	22.3	37.8	46.9	63.7	95.5	135	150.5	212.5	
	13.95	103.9		1.88	4.57	10.1	17.1	28.6	38.9	47.1	65.2	94.3	135	153.3	216.9	
	17.09	84.8		1.99	4.79	10.8	17.7	23.9	40.1	46.0	68.6	99.1	138	156.8	221.5	
	20.93	69.3		2.17	5.16	11.2	17.6	23.8	43.7	46.7	71.0	102	134	159.5	225.2	
	25.63	56.6		2.32	5.50	11.8	18.2	24.7	44.9	46.4	71.7	102	150	161.9	228.9	
	31.39	46.2		2.54	5.54	11.9	18.3	24.9	45.2	44.5	72.0	107	121	165.1	234.2	
1170	38.44	37.7	TRIPLE	2.51	4.64	7.39	13.4	19.5	33.8	44.7	73.0	85.9	129	177.6	252.1	
	47.08	30.8		2.81	5.14	8.89	16.2	23.3	38.6	45.6	75.7	101	152	170.5	256.1	
	57.66	25.1		3.00	5.26	10.5	19.0	23.7	43.1	45.2	74.5	108	156	172.3	258.0	
	70.62	20.5		3.05	5.34	11.7	19.1	26.1	42.9	43.5	73.7	114	157	186.5	265.2	
	86.50	16.8		3.01	5.57	11.5	19.6	27.0	43.2	45.7	76.1	109	145	189.0	266.7	
	105.9	13.7		2.98	5.63	11.6	19.7	27.5	45.7	44.9	80.0	116	153	190.0	269.7	
	129.7	11.2		2.88	5.91	11.5	19.6	32.5	48.5	45.6	81.4	118	158	190.0	271.4	
	158.9	9.1		2.99	6.16	11.7	20.1	28.1	50.4	45.2	82.0	118	160	190.0	273.8	
	194.6	7.5		3.09	6.10	11.7	20.2	28.2	50.3	43.3	84.8	123	159	190.0	276.4	
	2.25	520.0		1.05	2.12	3.28	5.40	8.65	13.6	†	†	†	†	†	†	†
	2.75	425.5		1.16	2.28	3.63	5.96	10.0	14.7	†	†	†	†	†	†	†
	3.37	347.2		1.25	2.42	3.96	6.36	11.1	16.0	†	†	†	†	†	†	†
	4.13	283.3		1.39	2.47	4.38	6.68	11.9	17.0	†	†	†	†	†	†	†
	5.06	231.2		1.43	3.97	7.22	13.5	19.5	29.1	40.9	62.5	76.8	126	139.0	195.4	
6.20	188.7	1.57	4.44	7.96	14.4	22.1	31.5	41.9	64.1	81.8	141	142.6	201.3			
7.59	154.2	1.69	4.55	8.72	15.3	23.6	34.0	43.0	65.8	87.3	134	147.3	207.0			
9.30	125.8	1.80	4.77	9.63	16.0	23.1	36.1	44.3	67.8	92.8	138	151.3	211.2			
11.39	102.7	1.92	4.84	10.2	17.0	23.5	38.5	45.0	68.9	96.7	141	153.8	216.8			
13.95	83.9	2.07	4.90	11.0	17.7	24.0	41.1	46.2	71.1	104	144	156.9	222.0			
17.09	68.5	2.24	5.19	11.6	18.0	24.5	41.9	47.3	72.8	105	147	159.8	227.4			
20.93	55.9	2.38	5.36	11.6	18.3	24.9	44.1	48.2	73.8	107	137	162.2	230.3			
25.63	45.6	2.56	5.71	11.6	18.7	25.3	45.2	49.1	75.2	110	151	164.0	233.9			
31.39	37.3	2.74	6.07	11.7	19.0	25.9	46.2	50.2	79.1	111	123	168.4	237.8			
870	38.44	30.4	TRIPLE	2.60	5.30	7.99	15.3	21.7	37.6	50.2	79.9	98.4	152	182.0	257.1	
	47.08	24.9		3.03	5.43	9.48	18.3	26.0	44.2	52.1	81.4	115	167	172.8	257.1	
	57.66	20.3		3.02	5.63	11.7	19.8	25.8	45.8	52.7	82.5	120	169	174.8	263.7	
	70.62	16.6		3.03	5.82	11.6	20.0	27.2	44.1	54.0	83.5	125	169	188.6	267.1	
	86.50	13.5		3.03	5.99	11.6	20.3	27.4	46.7	54.2	84.8	120	159	190.0	268.7	
	105.9	11.0		3.04	6.11	11.7	20.6	28.0	48.7	52.7	86.6	123	169	190.0	271.0	
	129.7	9.0		3.03	6.25	11.7	20.8	28.2	50.3	55.7	86.8	127	169	190.0	273.9	
	158.9	7.4		3.03	6.41	11.6	21.1	28.5	51.1	56.3	88.0	129	169	190.0	276.5	
	194.6	6.0		3.04	6.58	11.7	21.4	28.9	51.7	57.3	89.5	131	170	190.0	278.2	
	2.25	386.7		1.17	2.19	3.52	5.40	8.64	13.5	†	†	†	†	†	†	†
	2.75	316.4		1.27	2.28	3.88	5.74	9.7	14.8	†	†	†	†	†	†	†
	3.37	258.2		1.32	2.48	4.17	6.12	11.0	15.5	†	†	†	†	†	†	†
	4.13	210.7		1.34	2.70	4.28	6.66	11.8	17.3	†	†	†	†	†	†	†
	5.06	171.9		1.60	4.47	7.92	15.0	19.4	29.0	42.2	61.2	70.0	126	144.6	204.0	
6.20	140.3	1.72	4.79	8.84	15.5	21.7	31.9	43.0	62.1	80.2	142	148.8	209.1			
7.59	114.6	1.81	5.06	9.77	16.4	22.3	33.5	43.4	63.3	82.3	131	153.0	215.5			
9.30	93.5	1.96	5.26	10.5	17.3	23.0	37.1	46.0	63.3	90.5	135	155.4	219.1			
11.39	76.4	2.11	5.21	11.5	17.4	23.3	39.1	47.5	65.3	95.8	143	158.8	222.5			
13.95	62.4	2.26	5.33	11.5	18.0	24.4	40.6	48.7	67.1	95.7	143	161.6	227.8			
17.09	50.9	2.39	5.59	11.8	18.3	24.8	41.4	49.0	70.8	102	145	165.0	233.5			
20.93	41.6	2.61	6.03	11.6	18.2	24.7	45.0	50.7	73.2	105	134	165.7	235.4			
25.63	33.9	2.78	6.20	11.9	18.9	25.1	46.7	51.2	73.8	105	150	169.8	238.7			
31.39	27.7	3.06	6.11	11.9	19.0	25.8	47.2	50.2	74.2	110	121	172.5	242.0			
1450	38.44	22.6	TRIPLE	2.59	5.05	8.74	15.6	23.1	40.5	50.7	75.6	100	150	184.2	263.4	
	47.08	18.5		2.96	5.27	10.5	19.1	25.5	42.4	53.3	78.1	113	157	176.4	265.6	
	57.66	15.1		3.00	5.42	11.3	19.6	25.7	43.4	53.8	78.4	113	159	179.0	269.1	
	70.62	12.3		3.04	5.51	11.7	19.5	26.8	43.7	52.7	76.2	118	157	189.5	271.8	
	86.50	10.1		3.02	5.18	11.5	20.1	27.7	45.0	55.9	78.4	109	145	190.0	273.3	
	105.9	8.2		2.99	5.77	11.6	20.3	28.2	46.9	55.5	82.6	116	153	190.0	275.2	
	129.7	6.7		3.03	6.09	11.4	20.1	28.1	50.0	56.6	84.3	122	158	190.0	277.2	
	158.9	5.5		2.99	6.29	11.6	20.5	28.7	51.6	56.1	84.4	121	160	190.0	278.4	
	194.6	4.5		3.10	6.36	11.7	20.9	28.8	51.5	53.7	86.0	127	158	190.0	280.4	
	2.25	520.0		1.05	2.12	3.28	5.40	8.65	13.6	†	†	†	†	†	†	†
	2.75	425.5		1.16	2.28	3.63	5.96	10.0	14.7	†	†	†	†	†	†	†
	3.37	347.2		1.25	2.42	3.96	6.36	11.1	16.0	†	†	†	†	†	†	†
	4.13	283.3		1.39	2.47	4.38	6.68	11.9	17.0	†	†	†	†	†	†	†
	5.06	231.2		1.43	3.97	7.22	13.5	19.5	29.1	40.9	62.5	76.8	126	139.0	195.4	
6.20	188.7	1.57	4.44	7.96	14.4	22.1	31.5	41.9	64.1	81.8	141	142.6	201.3			
7.59	154.2	1.69	4.55	8.72	15.3	23.6	34.0	43.0	65.8	87.3	134	147.3	207.0			
9.30	125.8	1.80	4.77	9.63	16.0	23.1	36.1	44.3	67.8	92.8	138	151.3	211.2			
11.39	102.7	1.92	4.84	10.2	17.0	23.5	38.5	45.0	68.9	96.7	141	153.8	216.8			
13.95	83.9	2.07	4.90	11.0	17.7	24.0	41.1	46.2	71.1	104	144	156.9	222.0			
17.09	68.5	2.24	5.19	11.6	18.0	24.5	41.9	47.3	72.8	105	147	159.8	227.4			
20.93	55.9	2.38	5.36	11.6	18.3	24.9	44.1	48.2	73.8	107	137	162.2	230.3			
25.63	45.6	2.56	5.71	11.6	18.7	25.3	45.2	49.1	75.2	110	151	164.0	233.9			
31.39	37.3	2.74	6.07	11.7	19.0	25.9	46.2	50.2	79.1	111	123	168.4	237.8			



# Selection

## TXM Concentric Shaft Speed Reducers

### 720, 580, 100 RPM INPUT INPUT HORSEPOWER RATINGS

High Speed Shaft rpm	Nominal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Rating Data @ 1.0 Service Factor for Basic Unit Size of:													
				100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
720	2.25	320.0	DOUBLE	7.31	12.3	20.2	29.5	50.1	74.1	†	†	†	†	†	†	†	†
	2.75	261.8		5.84	10.5	18.4	25.5	46.4	66.4	†	†	†	†	†	†	†	†
	3.37	213.6		4.66	9.31	16.2	22.6	40.8	57.0	†	†	†	†	†	†	†	†
	4.13	174.3		3.87	7.81	13.7	20.3	35.6	51.7	†	†	†	†	†	†	†	†
	5.06	142.3		4.05	10.7	20.2	37.3	50.1	71.2	99.7	141	164	253	342	481	610	797
	6.20	116.1		3.55	8.83	18.5	31.4	43.8	64.2	82.0	120	157	249	337	469	601	788
	7.59	94.9		3.10	7.77	16.7	27.0	36.8	54.5	68.8	99.9	129	204	290	397	514	661
	9.30	77.4		2.74	6.53	14.5	23.3	30.8	49.6	59.1	81.8	115	170	197	290	397	514
	11.39	63.2		2.42	5.45	12.4	19.0	25.4	42.8	49.1	69.1	99.7	147	167	237	317	417
	13.95	51.6		2.11	4.61	9.95	16.0	21.5	35.7	40.0	57.7	81.7	120	139	199	269	359
	17.09	42.1		1.82	3.87	8.18	13.4	18.1	30.0	32.0	49.7	70.9	100	115	163	213	283
	20.93	34.4		1.62	3.34	6.59	10.8	14.7	26.6	26.5	41.9	60.4	76.0	80.9	118	158	208
	25.63	28.1		1.42	2.81	5.50	9.09	12.3	22.6	21.4	34.6	49.4	69.4	80.9	115	158	208
	31.39	22.9		1.17	2.30	4.49	7.49	10.1	18.5	16.8	28.4	42.2	45.7	65.3	93	133	173
	38.44	18.7		0.977	1.63	3.01	5.04	7.98	13.8	14.5	24.6	34.2	48.8	57.7	82	112	142
	47.08	15.3		0.780	1.46	2.96	5.04	6.97	11.6	12.0	20.7	29.5	41.2	45.9	69	99	129
	57.66	12.5		0.646	1.22	2.44	4.34	5.92	9.85	9.71	17.0	24.3	34.2	37.9	57	87	117
	70.62	10.2		0.531	1.01	2.06	3.54	4.86	7.94	7.62	13.4	21.0	27.5	32.0	46	76	106
	86.50	8.3		0.433	0.864	1.65	2.98	4.10	6.66	6.55	11.3	15.6	20.3	26.4	38	68	98
	105.9	6.8		0.343	0.708	1.35	2.46	3.42	5.69	5.27	9.75	13.5	17.9	21.3	31	51	81
	129.7	5.6		0.291	0.614	1.09	1.98	2.77	4.96	4.36	8.13	11.6	15.1	17.8	26	46	76
	158.9	4.5		0.234	0.520	0.912	1.66	2.32	4.28	3.53	6.59	9.6	12.5	14.5	21	41	71
	194.6	3.7		0.197	0.430	0.746	1.36	1.90	3.39	2.77	5.48	8.2	10.1	11.7	17	37	67
580	2.25	257.8	DOUBLE	5.71	9.91	16.6	23.8	40.4	59.7	†	†	†	†	†	†	†	†
	2.75	210.9		4.70	8.46	14.8	20.5	37.4	53.5	†	†	†	†	†	†	†	†
	3.37	172.1		3.75	7.50	13.1	18.2	32.9	45.9	†	†	†	†	†	†	†	†
	4.13	140.4		3.12	6.29	11.0	16.4	28.7	41.6	†	†	†	†	†	†	†	†
	5.06	114.6		3.48	8.71	20.5	32.1	40.4	57.4	81.5	116	132	240	283	397	514	661
	6.2	93.5		3.05	7.18	17.2	26.1	35.3	51.7	67.8	98.3	126	204	237	333	433	563
	7.59	76.4		2.66	6.28	14.5	21.8	29.6	43.9	56.2	81.8	104	167	196	277	367	477
	9.3	62.4		2.36	5.36	11.8	18.8	24.8	40.0	47.7	67.0	92.6	139	162	238	318	418
	11.39	50.9		2.08	4.39	9.99	15.3	20.5	34.5	39.5	56.6	80.3	120	137	194	264	344
	13.95	41.6		1.81	3.71	8.02	12.9	17.3	28.8	32.2	47.3	65.8	98.1	114	163	213	283
	17.09	33.9		1.56	3.12	6.59	10.8	14.6	24.2	25.8	40.7	57.1	81.8	94.2	133	183	233
	20.93	27.7		1.39	2.69	5.31	8.70	11.8	21.4	21.3	34.4	49.1	61.2	79.9	113	153	203
	25.63	22.6		1.13	2.26	4.43	7.32	9.91	18.2	17.2	28.4	40.2	55.9	65.8	94	134	184
	31.39	18.5		0.943	1.85	3.61	6.03	8.14	14.9	13.5	23.3	34.3	36.8	53.3	76	116	166
	38.44	15.1		0.781	1.31	2.61	4.06	6.49	11.1	11.7	20.1	27.6	39.3	47.0	67	97	127
	47.08	12.3		0.622	1.18	2.56	4.06	5.61	9.34	9.67	17.0	23.8	33.2	37.4	56	86	116
	57.66	10.1		0.520	0.983	1.97	3.50	4.77	7.93	7.82	13.9	19.6	27.6	30.8	46	76	106
	70.62	8.2		0.428	0.814	1.66	2.85	3.92	6.40	6.14	11.0	16.9	22.2	25.8	37	67	97
	86.5	6.7		0.349	0.696	1.33	2.40	3.30	5.37	5.28	9.25	12.6	16.4	21.2	31	51	81
	105.9	5.5		0.276	0.570	1.09	1.98	2.76	4.58	4.25	7.89	10.9	14.4	17.1	25	45	75
	129.7	4.5		0.234	0.495	0.878	1.60	2.23	4.00	3.51	6.55	9.34	12.2	14.3	21	41	71
	158.9	3.7		0.189	0.419	0.735	1.34	1.87	3.45	2.84	5.31	7.72	10.1	11.7	17	37	67
	194.6	3.0		0.159	0.396	0.600	1.10	1.53	2.73	2.23	4.41	6.65	8.14	9.39	14	24	44
100 *	2.25	44.4	DOUBLE	1.02	1.71	2.86	4.10	6.96	10.3	†	†	†	†	†	†	†	†
	2.75	36.4		0.811	1.46	2.56	3.54	6.44	9.22	†	†	†	†	†	†	†	†
	3.37	29.7		0.647	1.29	2.25	3.14	5.67	7.92	†	†	†	†	†	†	†	†
	4.13	24.2		0.538	1.08	1.90	2.82	4.94	7.18	†	†	†	†	†	†	†	†
	5.06	19.8		0.927	1.50	3.54	5.58	6.96	9.89	15.4	21.8	22.8	45.2	56.4	79	109	139
	6.20	16.1		0.758	1.24	2.96	4.49	6.08	8.92	12.8	18.5	21.8	38.5	46.6	66	96	126
	7.59	13.2		0.619	1.08	2.51	3.75	5.11	7.57	10.6	15.4	17.9	31.5	38.3	54	84	114
	9.30	10.8		0.523	0.924	2.04	3.24	4.28	6.89	9.14	12.6	16.0	26.2	31.2	46	76	106
	11.39	8.8		0.438	0.757	1.72	2.64	3.53	5.94	6.82	10.7	13.8	22.7	26.2	37	67	97
	13.95	7.2		0.360	0.640	1.38	2.22	2.99	4.96	5.56	8.91	11.3	18.5	21.7	31	51	81
	17.09	5.9		0.286	0.538	1.14	1.86	2.51	4.17	4.44	7.88	9.85	15.4	17.7	25	45	75
	20.93	4.8		0.241	0.464	0.915	1.50	2.04	3.69	3.68	6.47	9.22	10.6	14.8	21	41	71
	25.63	3.9		0.194	0.390	0.764	1.26	1.71	3.14	2.97	5.34	7.54	9.64	12.2	17	37	67
	31.39	3.2		0.163	0.319	0.624	1.04	1.40	2.57	2.33	3.94	6.44	6.35	9.82	13	23	43
	38.44	2.6		0.136	0.226	0.479	0.700	1.12	1.92	2.01	3.80	4.75	6.77	8.14	12	22	42
	47.08	2.1		0.108	0.203	0.464	0.700	0.968	1.61	1.67	3.20	4.10	5.72	6.82	10	20	40
	57.66	1.7		0.090	0.169	0.339	0.602	0.822	1.37	1.35	2.62	3.38	4.72	5.58	8	18	38
	70.62	1.4		0.074	0.140	0.286	0.472	0.675	1.10	1.06	2.07	2.92	3.82	4.45	6.7	17	37
	86.5	1.2		0.060	0.120	0.229	0.414	0.569	0.925	0.910	1.75	2.17	2.82	3.66	5.5	15	35
	105.9	0.94		0.048	0.098	0.188	0.342	0.475	0.790	0.730	1.51	1.88	2.49	2.96	4.5	15	35
	129.7	0.77		0.040	0.085	0.151	0.275	0.385	0.689	0.606	1.26	1.61	2.10	2.47	3.8	15	35
	158.9	0.63		0.033	0.072	0.127	0.231	0.322	0.594	0.490	0.915	1.33	1.74	2.01	3.1	15	35
	194.6	0.51		0.027	0.060	0.104	0.189	0.264	0.456	0.385	0.761	1.25	1.40	1.62	2.5	15	35

NOTE—Mechanical hp ratings shown in shaded areas exceed the unit thermal hp ratings. Refer to table on page G4-16.

† Ratio Not Available.

\* For speeds below 100 rpm, reduce hp rating proportionately.

▲ Established AGMA ratios, ±4%. For actual ratios see Table 9, page G4-20.



**720, 580, 100 RPM INPUT  
OUTPUT TORQUE RATINGS (lb.-in.)  
Multiply Value Shown by 1000**

High Speed Shaft rpm	Nominal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Rating Data (at 1.0 Service Factor for Basic Unit Size of:											
				100	200	300	400	500	600	700	800	900	1000	1100	1200
720	2.25	320.0	DOUBLE	1.23	2.25	3.93	5.57	9.47	21.1	†	†	†	†	†	†
	2.75	261.8		1.35	2.47	4.34	6.13	11.0	22.9	†	†	†	†	†	†
	3.37	213.6		1.35	2.58	4.61	6.65	11.7	24.8	†	†	†	†	†	†
	4.13	174.3		1.35	2.68	4.95	7.06	12.4	26.4	†	†	†	†	†	†
	5.06	146.1		1.69	4.43	8.66	15.6	21.3	30.3	41.9	62.3	71.8	130	148.1	209.4
	6.20	113.1		1.85	4.68	9.58	16.7	23.3	33.1	42.8	65.5	83.5	134	152.5	214.5
	7.59	94.9		2.02	4.87	10.5	17.5	23.7	35.4	44.2	67.6	85.5	138	155.7	219.5
	9.30	77.4		2.15	5.07	11.5	17.9	24.2	37.8	45.3	69.4	91.8	141	159.2	223.7
	11.39	63.2		2.30	5.29	11.6	18.2	24.6	40.3	45.4	70.9	96.7	144	160.5	228.8
	13.95	51.6		2.47	5.44	11.6	18.4	24.9	42.4	45.3	72.9	103	148	163.6	232.8
	17.09	42.1		2.68	5.63	11.6	18.9	25.6	43.7	45.3	74.5	106	152	166.2	235.2
	20.93	34.4		2.84	5.78	11.6	19.1	25.9	45.9	45.2	75.5	110	137	169.5	239.4
580	25.63	28.1	TRIPLE	3.08	5.90	11.6	19.5	26.2	47.1	45.0	77.2	112	151	171.4	241.5
	31.39	22.9		3.03	6.01	11.7	19.7	26.7	47.8	45.1	80.9	114	123	174.3	247.6
	38.44	18.7		3.03	5.36	9.39	16.4	25.6	43.8	45.4	82.1	114	168	187.0	265.4
	47.08	15.3		3.03	5.67	11.2	20.0	27.5	46.3	45.2	83.2	119	168	178.3	268.0
	57.66	12.5		3.02	5.87	11.7	20.4	27.6	48.2	45.1	84.4	122	169	179.9	271.1
	70.62	10.2		3.01	6.09	11.6	20.7	28.0	45.5	45.2	85.3	128	169	190.0	274.7
	86.50	8.3		3.03	6.32	11.6	21.0	28.3	48.1	45.1	86.5	119	155	190.0	275.8
	105.9	6.8		3.01	6.39	11.6	21.2	28.7	50.4	45.4	88.5	123	168	190.0	276.7
	129.7	5.6		3.04	6.59	11.6	21.4	29.1	52.1	45.2	88.9	129	169	190.0	278.8
	158.9	4.5		3.03	6.77	11.6	21.8	29.4	54.3	45.2	89.9	132	169	190.0	280.4
	194.6	3.7		3.03	6.98	11.7	22.0	29.9	53.3	45.3	88.6	134	169	190.0	282.5
	2.25	257.8	DOUBLE	1.34	2.33	3.90	5.59	9.48	14.0	†	†	†	†	†	†
100 *	2.75	210.9		1.35	2.43	4.25	5.88	10.7	15.3	†	†	†	†	†	†
	3.37	172.1		1.32	2.64	4.61	6.40	11.6	16.1	†	†	†	†	†	†
	4.13	140.4		1.34	2.71	4.74	7.07	12.4	17.9	†	†	†	†	†	†
	5.06	114.6		1.84	4.60	10.8	16.9	21.3	30.3	43.0	61.2	69.7	127	153.0	214.9
	6.20	93.5		1.97	4.64	11.1	17.3	22.8	33.4	43.9	63.6	81.5	132	158.0	219.6
	7.59	76.4		2.11	4.97	11.5	17.9	23.4	34.8	44.5	64.8	82.3	132	158.8	223.8
	9.30	62.4		2.29	5.20	11.4	18.2	24.1	38.8	46.3	65.0	89.8	135	161.2	228.0
	11.39	50.9		2.47	5.22	11.9	18.2	24.4	41.0	46.9	67.3	95.4	143	164.4	232.9
	13.95	41.6		2.63	5.40	11.7	18.8	25.2	41.9	46.9	68.8	95.8	143	165.1	235.7
	17.09	33.9		2.78	5.56	11.7	19.3	26.0	43.1	46.0	72.6	102	146	169.7	239.3
	20.93	27.7		3.03	5.89	11.6	19.0	25.8	46.7	46.5	75.1	107	134	172.2	241.3
	25.63	22.6		3.02	6.04	11.8	19.6	26.5	48.7	46.0	75.9	107	149	173.4	246.6
100 *	31.39	18.5		3.09	6.06	11.8	19.7	26.7	48.8	44.2	76.3	112	121	176.3	250.3
	38.44	15.1	TRIPLE	3.00	5.03	10.0	15.6	24.9	42.7	45.0	77.2	106	151	188.2	269.1
	47.08	12.3		2.93	5.55	12.0	19.1	26.4	44.0	45.5	80.0	112	156	180.3	271.4
	57.66	10.1		3.00	5.67	11.4	20.2	27.5	45.7	45.1	80.1	113	159	181.5	272.4
	70.62	8.2		3.02	5.75	11.7	20.1	27.7	45.2	43.3	77.7	119	157	190.0	275.7
	86.5	6.7		3.02	6.02	11.5	20.8	28.5	46.4	45.7	80.0	109	142	190.0	276.6
	105.9	5.5		2.92	6.03	11.5	21.0	29.2	48.5	45.0	83.5	115	152	190.0	279.7
	129.7	4.5		3.03	6.42	11.4	20.7	28.9	51.9	45.5	84.9	121	158	190.0	279.8
	158.9	3.7		3.00	6.66	11.7	21.3	29.7	54.8	45.1	84.4	123	160	190.0	280.4
	194.6	3.0		3.09	7.70	11.7	21.4	29.8	53.1	43.4	85.8	129	158	190.0	283.1
	2.25	44.4	DOUBLE	1.39	2.33	3.89	5.58	9.47	14.0	†	†	†	†	†	†
	2.75	36.4		1.35	2.43	4.26	5.89	10.7	15.3	†	†	†	†	†	†
	3.37	29.7		1.32	2.63	4.59	6.40	11.6	16.1	†	†	†	†	†	†
	4.13	24.2		1.34	2.70	4.75	7.05	12.3	17.9	†	†	†	†	†	†
	5.06	19.8		2.84	4.59	10.8	17.1	21.3	30.3	47.1	66.7	69.8	138	175.7	249.8
	6.20	16.1		2.84	4.65	11.1	16.8	22.8	33.5	48.0	69.4	81.8	144	177.1	253.2
	7.59	13.2		2.84	4.96	11.5	17.2	23.5	34.8	48.7	70.7	82.2	145	179.7	255.5
	9.30	10.8		2.94	5.20	11.5	18.2	24.1	38.8	51.4	70.9	90.0	147	181.1	256.7
	11.39	8.8		3.02	5.22	11.9	18.2	24.3	40.9	47.0	73.7	95.1	156	181.4	259.1
	13.95	7.2		3.04	5.40	11.6	18.7	25.2	41.9	46.9	75.2	95.4	156	182.8	260.7
	17.09	5.9		2.96	5.56	11.8	19.2	26.0	43.1	45.9	79.4	102	159	185.0	263.5
	20.93	4.8		3.05	5.88	11.6	19.0	25.8	46.7	46.6	81.9	117	134	185.8	264.5
	25.63	3.9		3.01	6.05	11.8	19.5	26.5	48.7	46.1	82.8	117	149	185.7	266.0
100 *	31.39	3.2		3.10	6.06	11.9	19.8	26.6	48.8	44.3	74.8	122	121	188.0	266.4
	38.44	2.6	TRIPLE	3.03	5.04	10.7	15.6	25.0	42.8	44.8	84.7	106	151	189.0	278.1
	47.08	2.1		2.95	5.54	12.7	19.1	26.4	44.0	45.6	87.4	112	156	189.9	287.7
	57.66	1.7		3.01	5.65	11.3	20.1	27.5	45.8	45.1	87.6	113	158	190.5	288.1
	70.62	1.4		3.03	5.73	11.7	19.3	27.6	45.0	43.4	84.8	120	156	189.4	289.7
	86.50	1.2		3.01	6.02	11.5	20.8	28.5	46.4	45.6	87.8	109	141	190.0	283.0
	105.9	0.94		2.95	6.02	11.5	21.0	29.2	48.5	44.8	92.7	115	153	190.0	290.5
	129.7	0.77		3.01	6.39	11.4	20.7	29.0	51.8	45.6	94.8	121	160	190.0	291.0
	158.9	0.63		3.03	6.63	11.7	21.3	29.7	54.7	45.1	84.3	123	160	190.0	291.1
	194.6	0.51		3.05	6.77	11.7	21.3	29.8	51.5	43.4	85.9	141	158	190.0	293.5

NOTE—Mechanical hp ratings shown in shaded areas exceed the unit thermal hp ratings. Refer to table on page G4-15.

▲ Established AGMA ratios, ± 4%. For actual ratios see Table 9, page G4-20.

† Ratio Not Available.

\* For speeds below 100 rpm, reduce hp rating proportionately.



# Selection

## TXM Concentric Shaft Speed Reducers

### THERMAL HORSEPOWER RATINGS\*

High Speed Shaft rpm	Nominal Ratios ▲	Aprox. Low Speed Shaft rpm	Basic Unit Size																		
			Without Fan †									With Fan ‡									
			400	500	600	700	800	900	1000	1100	1200	400	500	600	700	800	900	1000	1100	1200	
3600	5.06	710	35	35	#	#	#	#	#	#	#	70	85	#	#	#	#	#	#	#	#
	6.20	580	40	45	25	#	#	#	#	#	#	75	95	85	#	#	#	#	#	#	#
	7.59	475	45	50	40	#	#	#	#	#	#	80	100	100	#	#	#	#	#	#	#
	9.30	385	50	60	50	75	#	#	#	#	#	105	115	135	#	#	#	#	#	#	#
	11.39	315	55	65	65	90	#	#	#	#	#	125	150	150	#	#	#	#	#	#	#
	13.95	260	70	75	105	#	#	#	#	#	#	140	165	#	#	#	#	#	#	#	#
	17.09	210	85	120	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	20.93	175	95	130	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
25.63	140	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	
31.39	115	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	
2500	5.06	500	45	50	40	50	35	#	#	#	#	80	100	105	110	100	#	#	#	#	#
	6.20	400	50	60	50	70	65	#	#	#	#	110	115	130	130	130	#	#	#	#	#
	7.59	330	55	65	65	90	90	100	#	#	#	130	150	155	155	105	#	#	#	#	#
	9.30	270	70	75	105	115	125	80	#	#	#	135	165	180	135	185	#	#	#	#	#
	11.39	220	75	85	115	130	150	120	#	#	#	195	195	200	200	225	#	#	#	#	#
	13.95	180	96	130	150	175	170	200	#	#	#	200	200	200	200	200	#	#	#	#	#
	17.09	145	130	160	190	200	235	#	#	#	#	235	235	235	235	235	#	#	#	#	#
	20.93	120	160	190	200	235	#	#	#	#	#	235	235	235	235	235	#	#	#	#	#
25.63	100	190	200	235	#	#	#	#	#	#	235	235	235	235	235	#	#	#	#	#	
31.39	80	200	235	#	#	#	#	#	#	#	235	235	235	235	235	#	#	#	#	#	
1750	2.25	60	60	65	75	85	90	90	90	90	90	130	135	135	135	135	135	135	135	135	135
	2.75	70	70	75	85	90	90	90	90	90	90	130	135	135	135	135	135	135	135	135	135
	3.37	80	80	85	90	90	90	90	90	90	90	130	135	135	135	135	135	135	135	135	135
	4.13	90	90	95	100	100	100	100	100	100	100	130	135	135	135	135	135	135	135	135	135
	5.06	350	60	60	65	85	80	85	20	70	#	130	140	145	145	180	120	210	210	#	#
	6.20	280	60	70	75	100	100	115	75	120	90	140	160	170	170	210	175	260	260	25	25
	7.59	230	75	85	115	125	145	165	165	165	165	195	195	200	200	225	305	305	305	33	33
	9.30	190	95	130	150	165	165	185	195	240	275	275	275	275	275	275	275	275	275	38	38
11.39	155	100	130	150	165	165	185	195	240	270	320	355	355	355	355	355	355	355	44	44	
13.95	125	100	130	150	165	165	185	195	240	270	320	355	355	355	355	355	355	355	44	44	
17.09	100	130	145	175	150	200	240	240	270	320	355	355	355	355	355	355	355	355	44	44	
20.93	84	130	145	175	150	200	240	240	270	320	355	355	355	355	355	355	355	355	44	44	
1450	2.25	70	80	85	95	95	95	95	95	95	95	140	140	140	140	140	140	140	140	140	140
	2.75	75	85	95	95	95	95	95	95	95	95	140	140	140	140	140	140	140	140	140	140
	3.37	80	90	95	95	95	95	95	95	95	95	140	140	140	140	140	140	140	140	140	140
	4.13	90	95	95	95	95	95	95	95	95	95	140	140	140	140	140	140	140	140	140	140
	5.06	280	55	70	80	100	100	120	75	115	90	160	170	215	180	255	255	255	255	25	25
	6.20	230	75	90	115	125	140	140	160	160	200	195	235	260	270	300	300	300	300	32	32
	7.59	190	100	130	145	165	165	185	200	240	270	270	270	270	270	270	270	270	270	39	39
	9.30	155	100	130	145	165	165	185	200	240	270	270	270	270	270	270	270	270	270	43	43
11.39	125	100	130	145	165	165	185	200	240	270	320	350	350	350	350	350	350	350	43	43	
13.95	100	130	145	175	150	200	240	240	270	320	350	350	350	350	350	350	350	350	43	43	
17.09	84	130	145	175	150	200	240	240	270	320	350	350	350	350	350	350	350	350	43	43	
1170	2.25	90	95	95	95	95	95	95	95	95	95	195	250	230	305	305	305	305	305	33	33
	2.75	95	95	95	95	95	95	95	95	95	95	195	250	230	305	305	305	305	305	33	33
	3.37	100	95	95	95	95	95	95	95	95	95	195	250	230	305	305	305	305	305	33	33
	4.13	110	95	95	95	95	95	95	95	95	95	195	250	230	305	305	305	305	305	33	33
	5.06	230	95	115	125	155	130	160	165	200	225	225	225	225	225	225	225	225	225	39	39
	6.20	190	130	145	175	150	200	240	240	275	315	315	315	315	315	315	315	315	315	44	44
	7.59	155	130	145	175	150	200	240	240	275	315	315	315	315	315	315	315	315	315	44	44
	9.30	125	130	145	175	150	200	240	240	275	315	315	315	315	315	315	315	315	315	44	44
11.39	100	130	145	175	150	200	240	240	275	315	315	315	315	315	315	315	315	315	44	44	
13.95	84	130	145	175	150	200	240	240	275	315	315	315	315	315	315	315	315	315	44	44	
870	5.06	175	155	195	185	225	250	250	250	250	250	250	250	250	250	250	250	250	250	41	41
	6.20	140	155	195	185	225	250	250	250	250	250	250	250	250	250	250	250	250	250	46	46
	7.59	115	155	195	185	225	250	250	250	250	250	250	250	250	250	250	250	250	250	46	46
720	5.06	140	155	195	185	225	250	250	250	250	250	250	250	250	250	250	250	250	250	46	46
	6.20	115	155	195	185	225	250	250	250	250	250	250	250	250	250	250	250	250	250	46	46

\* Actual hp, without service factor, that unit will transmit continuously without overheating.

† Values are hp ratings where thermal hp is less than mechanical hp.

‡ No values listed if thermal hp equals or is greater than mechanical hp.

§ For thermal capacities beyond range of cooling fans, refer to heat exchanger page G4-33 or consult RELIANCE.

▲ Established AGMA ratios,  $\pm 4\%$ . For actual ratios see Table 9, page G4-20.

# Speed limitations exceeded.

Note: Thermal % time factor (F4)

If the reducer is stopped (no shaft rotation) during each hour of the day, then the thermal horsepower can be increased by this factor.

Percent of time each hour that the unit operates.

F4 =	100%	80%	60%	40%	20%
	1.0	1.2	1.4	1.6	1.8

**Table 3—(Lf) Load Location Factors for High Speed Shafts ▲**

Distance in Inches †	Basic Unit Size									
	100	200	300	400	500		600		700	
					Double	Triple	Double	Triple	Double	Triple
3/4	.86	...	...	...	...	...	...	...	...	...
1	1.00	.97	.83	.76	.68	.74	.68	.81	.88	.80
1 1/4	1.15	1.11	.94	.86	.77	.84	.76	.91	.90	.85
1 1/2	1.29	1.25	1.05	.95	.86	.95	.84	1.00	.92	.90
1 3/4	1.44	1.39	1.16	1.05	.95	1.05	.92	1.09	.95	.95
2	1.58	1.53	1.28	1.15	1.05	1.15	1.00	1.18	.97	1.00
2 1/4	1.73	1.69	1.39	1.25	1.14	1.25	1.08	1.28	.99	1.06
2 1/2	...	1.81	1.50	1.34	1.23	1.35	1.16	1.37	1.01	1.11
2 3/4	...	1.95	1.61	1.44	1.32	1.45	1.23	1.46	1.03	1.17
3	...	...	...	1.54	1.42	1.56	1.31	1.56	1.06	1.23
3 1/2	...	...	...	...	1.60	...	1.47	...	1.10	1.35
4	...	...	...	...	...	...	1.63	...	1.14	1.47
4 1/2	...	...	...	...	...	...	...	...	1.19	...
Distance in Inches †	Basic Unit Size									
	800		900		1000		1100		1200	
	Double	Triple	Double	Triple	Double	Triple	Double	Triple	Double	Triple
1	.80	.76	.79	.76	.78	.75	.78	.73	.77	.72
1 1/4	.84	.82	.81	.81	.81	.81	.80	.79	.79	.78
1 1/2	.87	.88	.84	.86	.83	.86	.82	.84	.81	.83
1 3/4	.90	.94	.87	.92	.86	.92	.85	.90	.84	.89
2	.93	1.00	.90	.97	.89	.97	.87	.95	.86	.94
2 1/4	.97	1.03	.94	1.00	.92	1.00	.91	.98	.89	.98
2 1/2	1.00	1.05	.97	1.02	.94	1.02	.92	1.01	.91	1.01
2 3/4	1.03	1.08	1.01	1.05	.97	1.05	.95	1.04	.94	1.03
3	1.06	1.11	1.04	1.08	1.00	1.07	.98	1.06	.97	1.05
3 1/2	1.13	1.16	1.14	1.13	1.05	1.11	1.02	1.11	1.00	1.10
4	1.20	1.21	1.23	1.29	1.11	1.16	1.06	1.16	1.04	1.16
4 1/2	1.26	...	1.31	...	1.15	...	1.12	1.18	1.09	1.36
5	1.33	...	1.40	...	1.20	...	1.17	...	1.13	...
5 1/2	...	...	1.51	...	1.25	...	1.20	...	1.17	...
6	...	...	...	...	1.31	...	1.25	...	1.22	...
6 1/2	...	...	...	...	...	...	1.28	...	1.26	...
7	...	...	...	...	...	...	...	...	1.31	...

▲ Based on distance from centerline of load to reducer seal.  
(See drawing, page G4-5). Factors are identified for double and triple reduction units.  
† Interpolate for intermediate values.

**Table 4—(Lf) Load Location Factors for Low Speed Shafts ▲**

Distance in Inches †	Basic Unit Size											
	100	200	300	400	500	600	700	800	900	1000	1100	1200
3/4	.72	.67	...	...	...	...	...	...	...	...	...	...
1	.81	.75	.77	.62	.65	.58	.81	.75	.74	.74	.74	.73
1 1/4	.90	.83	.84	.68	.70	.62	.83	.77	.76	.76	.75	.75
1 1/2	1.00	.91	.91	.74	.75	.67	.85	.79	.77	.77	.76	.76
1 3/4	1.09	1.00	.98	.80	.80	.72	.87	.81	.79	.79	.79	.78
2	1.19	1.07	1.05	.86	.85	.76	.89	.83	.81	.81	.81	.79
2 1/4	1.28	1.15	1.13	.92	.91	.81	.92	.85	.83	.83	.83	.81
2 1/2	1.38	1.23	1.20	.98	.96	.85	.94	.87	.85	.84	.84	.82
2 3/4	...	1.32	1.27	1.04	1.01	.90	.97	.90	.87	.86	.86	.84
3	...	1.38	1.34	1.09	1.06	.95	1.00	.92	.89	.88	.87	.85
3 1/2	...	...	1.48	1.21	1.17	1.04	1.05	.96	.92	.92	.91	.88
4	...	...	1.63	1.33	1.27	1.13	1.10	1.00	.95	.94	.94	.91
4 1/2	...	...	...	1.45	1.38	1.23	1.19	1.09	1.00	.98	.97	.94
5	...	...	...	...	1.48	1.32	1.28	1.19	1.06	1.03	1.00	.97
5 1/2	...	...	...	...	...	1.41	1.37	1.28	1.14	1.11	1.05	1.00
6	...	...	...	...	...	1.51	1.46	1.38	1.22	1.20	1.11	1.04
6 1/2	...	...	...	...	...	...	1.55	1.47	1.30	1.28	1.16	1.09
7	...	...	...	...	...	...	1.65	1.57	1.38	1.37	1.22	1.14
7 1/2	...	...	...	...	...	...	...	1.67	1.46	1.45	1.28	1.22
8	...	...	...	...	...	...	...	1.77	1.54	1.54	1.34	1.30
8 1/2	...	...	...	...	...	...	...	...	1.62	1.62	1.39	1.38
9	...	...	...	...	...	...	...	...	1.71	1.71	1.44	1.47
9 1/2	...	...	...	...	...	...	...	...	...	1.79	1.49	1.55
10	...	...	...	...	...	...	...	...	...	...	1.55	1.63
10 1/2	...	...	...	...	...	...	...	...	...	...	...	1.71
11	...	...	...	...	...	...	...	...	...	...	...	1.79

▲ Based on distance from centerline of load to reducer seal.  
(See drawing, page G4-5). Factors are identified for double and triple reduction units.  
† Interpolate for intermediate values.



# Overhung Load Capacities

**Table 5—Sheave Size Factor—High Speed Shaft**

Reduction	Nom-inal Ratio	Approx. Low Speed Shaft RPM	Basic Unit Size											
			100		200		300		400		500		600	
			CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS
DOUBLE	2.25	778	0.65	0.69	1.1	1.3	1.1	1.2	1.2	1.4	1.5	#	*1.6	#
	2.75	635	0.65	0.69	1.1	1.3	1.1	1.2	1.2	1.4	1.5	#	*1.6	#
	3.37	519	0.62	0.65	0.95	0.99	1.1	1.2	1.2	1.4	1.5	#	*1.6	#
	4.13	423	0.62	0.65	0.95	0.99	1.1	1.2	1.2	1.4	1.5	#	*1.6	#
	5.06	350	0.62	0.65	0.95	0.91	1.1	1.2	1.2	1.4	1.5	#	*1.6	#
	6.20	280	0.58	0.58	0.83	0.91	1.1	1.2	1.2	1.4	1.3	#	*1.5	#
	7.59	230	0.58	0.58	0.84	0.91	1.1	1.2	1.1	1.3	1.3	#	*1.5	#
	9.30	190	0.58	0.58	0.66	0.68	1	1.1	1	1.1	1.2	#	1.4	#
	11.39	155	0.58	0.58	0.66	0.68	0.89	0.91	0.86	0.93	1.1	#	1.2	1.6
	13.95	125	0.58	0.58	0.66	0.68	0.9	0.91	0.86	0.93	1.1	1.6	1.2	1.6
	17.09	100	0.58	0.58	0.63	0.64	0.7	0.7	0.86	0.93	1.1	1.6	1.2	1.6
	20.93	84	0.58	0.58	0.51	0.51	0.7	0.7	0.78	0.82	0.88	1.2	1.2	1.6
	25.63	68	0.58	0.58	0.51	0.51	0.62	0.62	0.68	0.68	0.79	1	1.1	1.4
	31.39	56	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.69	0.83	1	1.2
Reduction	Nom-inal Ratio	Approx. Low Speed Shaft RPM	Basic Unit Size											
			700		800		900		1000		1100		1200	
			CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS
DOUBLE	5.06	350	*1.6	#	0.75	0.75	1	#	α 0.76	α 0.76	α 1	α 1	α 1	α 1
	6.20	280	*1.6	#	0.75	0.75	0.91	#	α 0.76	α 0.76	α 1	α 1	α 1	α 1
	7.59	230	*1.6	#	0.75	0.75	0.83	*1.4	0.76	0.76	α 1	α 1	α 1	α 1
	9.30	190	1.2	#	0.75	0.75	0.72	0.92	0.76	0.76	1	1	α 1	α 1
	11.39	155	1.1	#	0.75	0.75	0.66	0.66	0.76	0.76	1	1	α 1	α 1
	13.95	125	0.95	1.2	0.75	0.75	0.66	0.66	0.76	0.76	1	1	1	1
	17.09	100	0.95	1	0.75	0.75	0.66	0.66	0.76	0.76	1	1	1	1
	20.93	84	0.95	1	0.75	0.75	0.66	0.66	0.76	0.76	1	1	1	1
	25.63	68	0.84	1	0.75	0.75	0.66	0.66	0.76	0.76	1	1	1	1
	31.39	56	0.77	1	0.75	0.75	0.66	0.66	0.76	0.76	1	1	1	1
Reduction	Nom-inal Ratio	Approx. Low Speed Shaft RPM	Basic Unit Size											
			100		200		300		400		500		600	
			CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS
TRIPLE	38.44	45	0.58	0.58	0.51	0.51	0.62	0.62	#	0.65	0.64	0.64	0.74	0.88
	47.08	37	0.58	0.58	0.51	0.51	0.62	0.62	#	0.65	0.64	0.64	0.64	0.72
	57.66	30	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.64	0.64	0.64	0.72
	70.62	25	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.64	0.64	0.64	0.64
	86.50	20	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.64	0.64	0.64	0.64
	105.9	16.5	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.64	0.64	0.64	0.64
	129.7	13.5	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.64	0.64	0.64	0.64
	158.9	11	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.64	0.64	0.64	0.64
	194.6	9	0.58	0.58	0.51	0.51	0.62	0.62	0.65	0.65	0.64	0.64	0.64	0.64
Reduction	Nom-inal Ratio	Approx. Low Speed Shaft RPM	Basic Unit Size											
			700		800		900		1000		1100		1200	
			CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS	CW-VHSS	CCW-VHSS
TRIPLE	38.44	45	0.68	0.92	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	47.08	37	0.68	0.78	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	57.66	30	0.68	0.68	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	70.62	25	0.68	0.68	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	86.50	20	0.68	0.68	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	105.9	16.5	0.68	0.68	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	129.7	13.5	0.68	0.68	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	158.9	11	0.68	0.68	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1
	194.6	9	0.68	0.68	0.83	0.83	0.78	0.78	0.86	0.86	1	1	1	1

# Do not belt drive in this rotation.

\* Sheave must be checked against maximum pitch line velocity limits

CW-VHSS = clockwise rotation viewing the high speed shaft end.

CCW-VHSS = counter-clockwise rotation viewing the high speed shaft end

α applications having motor hp > 400 should be reviewed

by product engineering.

**Table 6—Min. Recommended Classical Groove Sheave Diameters for Drives Using Electric Motors**

Motor RPM	A, B, C, D V-belt Sheave	Motor Horsepower																		
		1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125
870	Min. PD.	2.2	2.4	2.4	2.4	3.0	3.0	3.8	4.4	4.6	5.4	6.0	6.8	6.8	8.2	9.0	10.0	10.5	12.5	....
	Max. Face Width	4.2	4.3	5.3	5.3	6.5	6.5	7.8	7.8	9.0	9.0	10.3	10.3	11.5	11.5	14.3	14.3	16.8	16.8	....
1160	Min. PD.	....	2.2	2.4	2.4	3.0	3.0	3.8	4.4	4.6	5.4	6.0	6.8	6.8	8.2	9.0	10.0	11.0	12.5	....
	Max. Face Width	....	4.3	4.3	5.3	5.3	6.5	6.5	7.8	7.8	9.0	10.3	10.3	11.5	11.5	14.3	14.3	16.8	16.8	....
1750	Min. PD.	....	....	2.2	2.4	2.4	3.0	3.0	3.8	4.4	4.6	5.0	5.4	6.0	6.8	7.4	9.0	10.0	11.5	....
	Max. Face Width	....	....	4.3	4.3	4.3	5.3	5.3	6.5	6.5	7.8	7.8	9.0	9.0	10.3	10.3	11.5	11.5	14.3	14.3
3500	Min. PD.	....	....	....	2.2	2.4	2.4	2.6	3.0	3.0	3.8	4.4	4.4	....	....	....	....	....	....	....
	Max. Face Width	....	....	....	4.3	4.3	4.3	5.3	5.3	6.5	6.5	7.8	7.8	....	....	....	....	....	....	....

Data is per NEMA Standard MG1-14.42. In areas where sheaves are not listed, consult motor manufacturer.

**Table 7—Min. Recommended Narrow Groove Sheave Diameters for Drives Using Electric Motors**

Motor RPM	3V, 5V, 8V V-belt Sheave	Motor Horsepower																		
		1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60	75	100	125
870	Min. O.D.	2.2	2.4	2.4	2.4	3.0	3.0	3.8	4.4	4.4	5.2	6.0	6.8	6.8	8.2	8.4	10.0	9.5	12.0	12.5
	Max. Face Width	2.3	2.3	2.8	2.8	3.4	3.4	4.0	4.0	4.7	4.7	5.3	5.3	5.9	5.9	7.3	7.3	8.5	8.5	8.5
1160	Min. O.D.	....	2.2	2.4	2.4	3.0	3.0	3.8	4.4	4.4	5.2	6.0	6.8	6.8	8.2	9.0	10.0	10.0	12.0	13.2
	Max. Face Width	....	2.3	2.3	2.8	2.8	3.4	3.4	4.0	4.0	4.7	4.7	5.3	5.3	5.9	5.9	7.3	7.3	8.5	8.5
1750	Min. O.D.	....	....	2.2	2.4	2.4	3.0	3.0	3.8	4.4	4.4	5.2	6.0	6.8	7.4	8.6	8.6	10.5	10.5	13.2
	Max. Face Width	....	....	2.3	2.3	2.8	2.8	3.4	3.4	4.0	4.0	4.7	4.7	5.3	5.9	5.9	7.3	7.3	8.5	9.4
3500	Min. O.D.	....	....	....	2.2	2.4	2.4	3.0	3.0	3.8	4.4	4.4	....	....	....	....	....	....	....	....
	Max. Face Width	....	....	....	2.3	2.3	2.8	2.8	3.4	3.4	4.0	4.0	....	....	....	....	....	....	....	....

Data in shaded area is per NEMA Standard MG1-14.42. Balance of data within the capability of RELIANCE ELECTRIC Protected Motors. In areas where sheaves are not listed, consult motor manufacturer.

## Overhung Load Capacities

**Table 8—Low Speed Shaft Loads**

Approx. Low Speed Shaft rpm *	OVERHUNG LOAD CAPACITY IN LBS. ‡									
	Basic Unit Size									
	100	200	300	400	500	600	700	800	900	1000
780	1270	1820	2220	3800	3800	5110	♦	♦	♦	♦
640	1350	1940	2330	4080	3880	5310	♦	♦	♦	♦
520	1450	2060	2470	4300	4020	5430	♦	♦	♦	♦
420	1520	2220	2630	4350	4100	5530	♦	♦	♦	♦
350	1620	2280	2750	4510	4170	5660	7430	8700	10400	15500
280	1740	2450	2880	4660	4260	5810	8060	9180	11000	16700
230	1850	2510	3060	4730	4330	6030	8430	10000	11800	18300
190	1980	2550	3230	4820	4410	6110	8970	11000	12500	19400
155	2090	2580	3420	4870	4440	6210	9480	11300	13500	20700
125	2220	2640	3710	4960	4440	6310	9640	11800	14800	21900
100	2350	2650	3890	4990	4620	6410	9790	11900	15400	22300
84	2350	2690	3960	5080	4700	6470	9920	12300	16300	22800
68	2350	2560	4060	5170	4770	6680	9960	12500	17700	23000
56	2350	2780	4180	5290	4800	6720	10200	12800	18900	23500
45	2350	2830	4250	5380	4890	6900	10500	13200	21500	25200
37	2350	3160	4300	5500	4980	7090	10800	13400	21500	25700
30	2350	2930	4360	5500	5040	7170	11000	13600	21500	26000
25	2350	3760	4400	5500	5110	7270	11200	13800	21500	26000
20	2350	3020	4560	5500	5160	7380	11300	14200	21500	26000
16.5	2350	3080	4600	5500	5260	7490	11500	14500	21500	26000
13.5	2350	3130	4660	5500	5300	7600	11600	14600	21500	26000
11	2350	3390	4680	5500	5420	7710	11700	14600	21500	26000
9†	2350	3200	4800	5500	5470	7750	11800	14800	21500	26000

\* Interpolate for intermediate values.

† The value in each unit size column applies to all lower speeds for that unit.

♦ Consult RELIANCE.

‡ Capacities are for pure radial loads. If overhung loads are applied at same time as thrust loads, or if loads exceed the value shown—consult RELIANCE.



# Actual Ratios and WR<sup>2</sup> Values

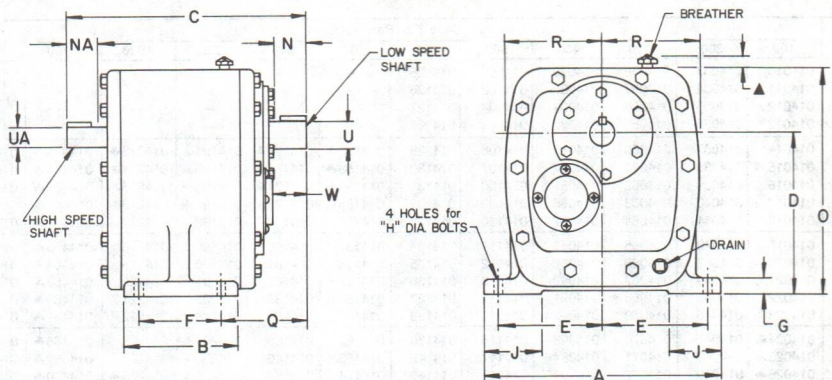
Table 9—Actual Ratios and WR<sup>2</sup> (lb. in<sup>2</sup>) Values \*

Nom. AGMA Ratios (Ref.)	Approx. Low Speed Shaft rpm †	Reduction	Basic Unit Size											
			100		200		300		400		500		600	
			Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>
2.25	780	DOUBLE	2.207	7.475	2.181	13.51	2.318	25.33	2.249	63.57	2.250	93.44	2.269	212.3
2.75	636		2.756	5.776	2.794	10.06	2.800	20.93	2.859	47.05	2.813	71.70	2.742	166.3
3.37	520		3.451	4.520	3.300	8.315	3.389	17.38	3.502	37.00	3.401	58.05	3.458	125.3
4.13	424		4.153	3.749	4.086	6.556	4.295	13.83	4.137	30.75	4.145	46.97	4.061	103.6
5.06	350		4.958	3.923	4.926	9.520	5.100	19.67	4.966	39.93	5.067	51.45	5.071	126.4
6.20	280		6.194	3.100	6.311	7.037	6.160	15.73	6.315	29.24	6.333	39.36	6.128	100.0
7.59	230		7.754	2.444	7.454	5.851	7.456	12.62	7.733	23.28	7.659	31.82	7.728	75.66
9.30	190		9.333	2.003	9.231	4.598	9.449	9.492	9.137	19.13	9.333	24.34	9.075	57.41
11.39	155		11.33	1.644	11.56	3.673	11.16	7.884	11.37	15.17	11.52	19.90	11.22	46.03
13.95	125		13.95	1.325	14.03	3.447	13.93	6.170	13.71	12.74	13.80	16.79	14.13	36.94
17.09	100		17.52	1.097	17.31	2.308	16.92	4.982	16.80	10.20	16.82	13.40	17.33	23.50
20.93	84		20.88	.8928	20.60	1.806	21.00	4.732	21.06	6.895	20.99	9.438	20.53	22.21
25.63	68	TRIPLE	25.85	.7848	24.98	1.734	25.18	3.110	25.51	5.795	25.33	9.429	24.79	18.42
31.39	56		30.76	.6278	31.12	1.542	30.94	2.458	31.36	4.713	31.41	7.345	30.77	13.19
38.44	45		37.68	.4709	39.97	.8366	37.91	1.917	39.47	3.557	38.89	7.009	38.53	11.52
47.08	37		47.17	.4536	47.21	.8078	45.88	1.835	48.33	3.400	47.96	6.754	48.53	10.76
57.66	30		56.78	.4421	58.46	.7762	58.15	1.751	57.11	3.293	56.72	5.309	59.52	9.979
70.62	25		68.94	.4320	73.23	.7531	68.66	1.709	71.06	3.191	69.98	5.188	69.72	6.054
86.50	20		84.86	.4234	88.84	.7373	85.74	1.663	85.69	3.123	83.88	5.105	87.79	5.812
105.9	16.5		106.6	.4176	109.7	.7243	104.1	1.627	105.0	3.066	102.2	5.014	107.7	5.576
129.7	13.5		127.0	.4133	130.5	.7157	129.2	1.604	131.7	3.020	127.6	4.955	127.6	5.472
158.9	11.0		157.3	.4090	158.2	.7085	155.0	1.584	159.4	2.979	154.0	4.913	154.1	5.383
194.6	9.0		187.1	.4061	197.1	.6998	190.4	1.570	196.0	2.948	190.9	4.874	191.2	5.299
Nom. AGMA Ratios (Ref.)	Approx. Low Speed Shaft rpm †	Reduction	Basic Unit Size											
			700		800		900		1000		1100		1200	
			Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>	Ratio	WR <sup>2</sup>
5.06	350	DOUBLE	5.000	148.2	5.046	314.4	5.000	535.1	5.077	983.6	5.154	1913.	5.178	3286.
6.20	280		6.160	121.2	6.233	240.8	6.070	425.1	6.135	781.1	6.298	1494.	6.316	2564.
7.59	230		7.630	94.30	7.731	185.9	7.570	330.1	7.736	594.9	7.731	1171.	7.742	2001.
9.30	190		9.115	77.37	9.683	144.0	9.090	270.8	9.468	476.0	9.571	921.0	9.164	1646.
11.39	155		11.00	65.52	11.73	116.8	11.04	222.0	11.23	396.4	11.47	756.0	11.46	1278.
13.95	125		13.46	51.77	14.43	94.53	14.37	180.7	14.14	308.9	13.94	616.9	13.92	1031.
17.09	100		16.82	41.37	17.10	78.98	17.15	143.3	17.35	249.6	17.26	490.3	17.22	807.0
20.93	84		20.26	35.00	20.62	65.95	20.84	121.1	20.55	210.3	20.61	385.1	20.56	664.9
25.63	68		25.00	29.17	25.45	53.26	26.00	99.19	24.81	163.9	25.16	316.6	25.09	537.8
31.39	56		31.93	24.12	32.51	45.20	30.77	86.95	30.80	143.3	31.66	276.0	31.55	425.4
38.44	45	TRIPLE	37.98	22.36	38.11	44.77	37.92	75.76	39.42	128.7	39.27	253.3	39.13	442.7
47.08	37		45.75	20.84	45.94	42.33	46.09	70.91	46.70	121.2	46.92	232.8	46.74	415.3
57.66	30		56.45	19.69	56.71	40.23	57.51	66.70	56.40	112.2	57.26	219.0	57.02	390.6
70.62	25		72.09	18.72	72.45	38.54	68.06	64.25	70.00	108.3	72.06	211.2	71.71	369.1
86.50	20		83.64	7.486	87.49	15.99	87.21	27.98	87.69	35.49	87.91	92.54	86.28	124.8
105.9	16.5		104.5	7.207	103.7	15.72	104.0	26.97	107.5	33.92	108.8	89.40	106.7	119.0
129.7	13.5		125.9	7.043	125.0	15.42	126.4	26.33	127.4	32.90	130.0	86.74	127.5	115.3
158.9	11.0		155.3	6.879	154.3	15.09	157.7	25.78	153.8	31.69	158.7	84.94	155.5	112.0
194.6	9.0		198.3	6.739	197.1	14.86	186.6	25.44	191.0	31.16	199.7	83.88	195.6	109.1

\* WR<sup>2</sup> refers to high speed shaft. For low speed shaft WR<sup>2</sup>, multiply the WR<sup>2</sup> value listed by (actual ratio)<sup>2</sup>.

† Based on 1750 high speed shaft rpm.

## DODGE TXM (Free Standing) Concentric Shaft Reducers



DODGE TXM (Free Standing) Concentric Shaft Reducers

Basic Unit Size	Part Numbers	A	B	C		D	E	F	G	H	J	N	NA	
				Double Reduction Units	Triple Reduction Units								Double Reduction Units w/o Fan ★	Triple Reduction Units
100	See Page G4-22	11 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>16</sub>	13 <sup>37</sup> / <sub>64</sub>	13 <sup>37</sup> / <sub>64</sub>	6.30	5.20	4.00	1 <sup>1</sup> / <sub>16</sub>	1/2	2 <sup>7</sup> / <sub>16</sub>	3	2	2
200		12 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	7.00	5.60	5.34	1 <sup>3</sup> / <sub>16</sub>	3/4	3 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>
300		15 <sup>1</sup> / <sub>4</sub>	8	18 <sup>7</sup> / <sub>16</sub>	18 <sup>7</sup> / <sub>16</sub>	8.50	6.60	6.10	1 <sup>5</sup> / <sub>16</sub>	4/4	4 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>
400		16 <sup>7</sup> / <sub>16</sub>	9	21 <sup>1</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>16</sub>	9.60	7.30	7.10	1 <sup>1</sup> / <sub>8</sub>	7/8	4 <sup>1</sup> / <sub>2</sub>	4 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>
500		18 <sup>5</sup> / <sub>8</sub>	12	24 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	9.96	8.20	10.00	1 <sup>1</sup> / <sub>4</sub>	1	4 <sup>3</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>
600		21 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	28 <sup>1</sup> / <sub>32</sub>	27 <sup>3</sup> / <sub>32</sub>	11.66	9.30	11.30	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>16</sub>
700	See Page G4-22	23	15 <sup>5</sup> / <sub>16</sub>	31 <sup>11</sup> / <sub>16</sub>	30 <sup>49</sup> / <sub>64</sub>	12.78	10.20	13.20	2	1 <sup>1</sup> / <sub>4</sub>	6	7	4 <sup>9</sup> / <sub>16</sub>	4
800		25 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>2</sub>	35 <sup>5</sup> / <sub>16</sub>	33 <sup>3</sup> / <sub>32</sub>	14.80	11.20	14.70	1	1 <sup>3</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	8	5 <sup>27</sup> / <sub>64</sub>	4
900		27 <sup>29</sup> / <sub>64</sub>	19 <sup>9</sup> / <sub>32</sub>	38 <sup>1</sup> / <sub>2</sub>	37 <sup>9</sup> / <sub>64</sub>	17.40	12.20	14.96	1	1 <sup>1</sup> / <sub>2</sub>	9	9	5 <sup>39</sup> / <sub>64</sub>	4 <sup>1</sup> / <sub>4</sub>
1000		29 <sup>1</sup> / <sub>2</sub>	21 <sup>3</sup> / <sub>16</sub>	42 <sup>1</sup> / <sub>4</sub>	40 <sup>7</sup> / <sub>64</sub>	19.50	13.10	17.28	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	9	9 <sup>1</sup> / <sub>2</sub>	6 <sup>11</sup> / <sub>64</sub>	4 <sup>1</sup> / <sub>4</sub>
1100		32 <sup>3</sup> / <sub>16</sub>	23 <sup>39</sup> / <sub>64</sub>	45 <sup>5</sup> / <sub>8</sub>	43 <sup>1</sup> / <sub>32</sub>	21.90	14.44	18.80	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	9	10	6 <sup>31</sup> / <sub>64</sub>	4 <sup>1</sup> / <sub>2</sub>
1200		34	25 <sup>7</sup> / <sub>16</sub>	48 <sup>27</sup> / <sub>64</sub>	46 <sup>7</sup> / <sub>64</sub>	24.70	15.20	19.30	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	9	10 <sup>3</sup> / <sub>4</sub>	6 <sup>63</sup> / <sub>64</sub>	4 <sup>1</sup> / <sub>2</sub>

Basic Unit Size	O	Q	R	U		UA				W	Av. Unit Wt. (Lbs.)
						Dbl. Reduction Units		Triple Reduction Units			
				Shaft Dia.	Key Size	Shaft Dia.	Key Size	Shaft Dia.	Key Size		
100	10 <sup>9</sup> / <sub>64</sub>	5 <sup>3</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	1 1/2	3/8 x 3/8 x 2 1/4	1	1/4 x 1/4 x 1 1/16	1	1/4 x 1/4 x 1 1/16	33/64	94
200	11	6 1/8	5 1/8	1 3/4	3/8 x 3/8 x 2 1/2	1 1/8	1/4 x 1/4 x 2	1 1/8	1/4 x 1/4 x 2	33/16	133
300	13 3/8	6 7/8	6 3/16	2	1/2 x 1/2 x 3	1 3/8	5/16 x 5/16 x 2 1/2	1 3/8	5/16 x 5/16 x 2 1/2	339/64	193
400	14 <sup>15</sup> / <sub>32</sub>	8 7/64	6 1/16	2 1/2	3/8 x 3/8 x 3 5/16	1 5/8	3/8 x 3/8 x 2 1/2	1 5/8	3/8 x 3/8 x 2 1/2	49/32	282
500	15 <sup>7</sup> / <sub>8</sub>	8	7 7/16	2 3/4	3/8 x 3/8 x 4 5/8	1 7/8	1/2 x 1/2 x 3 1/2	1 5/8	3/8 x 3/8 x 3	447/64	405
600	18 <sup>5</sup> / <sub>32</sub>	9 13/64	8 5/32	3 1/4	3/4 x 3/4 x 5 1/2	2 1/8	1/2 x 1/2 x 3 1/2	1 3/4	3/8 x 3/8 x 2 1/2	6 1/4	590
700	19 <sup>3</sup> / <sub>32</sub>	10	9 1/8	3 1/2	7/8 x 7/8 x 5 1/2	2 1/4	1/2 x 1/2 x 4 1/2	2	1/2 x 1/2 x 3 1/2	6 7/16	680
800	22 <sup>3</sup> / <sub>16</sub>	11 13/64	10 1/8	4	1 x 1 x 6 1/2	2 1/2	5/8 x 5/8 x 4 1/2	2	1/2 x 1/2 x 3 1/2	7 21/64	1200
900	25 <sup>29</sup> / <sub>64</sub>	13 9/64	11	4 1/2	1 x 1 x 8 1/2	2 3/4	5/8 x 5/8 x 5	2 1/8	1/2 x 1/2 x 3 3/4	9 5/8	1660
1000	29 1/2	13 <sup>29</sup> / <sub>32</sub>	11 3/4	4 3/4	1 1/4 x 1 1/4 x 8 1/2	3	3/4 x 3/4 x 5 1/2	2 1/8	1/2 x 1/2 x 3 3/4	10	1950
1100	33 <sup>5</sup> / <sub>32</sub>	14 <sup>3</sup> / <sub>16</sub>	13	5	1 1/4 x 1 1/4 x 9	3 1/4	3/4 x 3/4 x 5 1/2	2 1/4	1/2 x 1/2 x 4	10 5/8	2760
1200	37 <sup>1</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>32</sub>	14 1/2	5 1/2	1 1/4 x 1 1/4 x 9 3/8	3 1/2	7/8 x 7/8 x 6	2 1/4	1/2 x 1/2 x 4	11 1/2	3476

▲ 1<sup>1</sup>/<sub>2</sub>" will clear breather on all size units.

★ When fan is required see page G4-33.



# Part Numbers

## DODGE TXM (Free Standing) Concentric Shaft Reducers

Ratios	Case Size/Part Numbers											
	100	200	300	400	500	600	700	800	900	1000	1100	1200
2.2	014010	014033	014056	014079	014102	014125	—	—	—	—	—	—
2.8	014011	014034	014057	014080	014103	014126	—	—	—	—	—	—
3.37	014012	014035	014058	014081	014104	014127	—	—	—	—	—	—
	014013	014036	014059	014082	014105	014128	—	—	—	—	—	—
5.1	014014	014037	014060	014083	014106	014129	014152♣	014175♣	014194♣	014213♣	014458♣	014477♣
6.2	014015	014038	014061	014084	014107	014130	014153♣	014176♣	014195♣	014214♣	014459♣	014478♣
7.6	014016	014039	014062	014085	014108	014131	014154♣	014177♣	014196♣	014215♣	014460♣	014479♣
9.3	014017	014040	014063	014086	014109	014132	014155	014178	014197♣	014216♣	014461♣	014480♣
11.4	014018	014041	014064	014087	014110	014133	014156	014179	014198	014217	014462♣	014481♣
	014019	014042	014065	014088	014111	014134	014157	014180	014199	014218	014463♣	014482♣
17.1	014020	014043	014066	014089	014112	014135	014158	014181	014200	014219	014464♣	014483♣
20.9	014021	014044	014067	014090	014113	014136	014159	014182	014201	014220	014465♣	014484♣
25.6	014022	014045	014068	014091	014114	014137	014160	014183	014202	014221	014466♣	014485♣
31.4	014023	014046	014069	014092	014115	014138	014161	014184	014203	014222	014467♣	014486♣
38.4	014024♣	014047	014070	014093	014116	014139	014162	014185	014204♣	014223	014468♣	014487♣
47.1	014025♣	014048	014071	014094	014117	014140	014163	014186	014205♣	014224	014469♣	014488♣
57.7	014026♣	014049	014072	014095	014118	014141	014164	014187	014206♣	014225♣	014470♣	014489♣
70.6	014027♣	014050	014073	014096	014119	014142	014165♣	014188	015207♣	014226♣	014471♣	014490♣
86.5	014028♣	014051♣	014074♣	014097	014120	014143	014166♣	014189	014208♣	014227♣	014472♣	014491♣
105.9	014029♣	014052♣	014075♣	014098♣	014121	014144	014167♣	014190♣	014209♣	014228♣	014473♣	014492♣
129.7	014030♣	014053♣	014076♣	014099♣	014122	014145	014168♣	014191♣	014210♣	014229♣	014474♣	014493♣
158.9	014031♣	014054♣	014077♣	014100♣	014123	014146	014169♣	014192♣	014211♣	014230♣	014475♣	014494♣
194.6	014032♣	014055♣	014078♣	014101♣	014124♣	014147♣	014170♣	014193♣	014212♣	014231♣	014476♣	014495♣

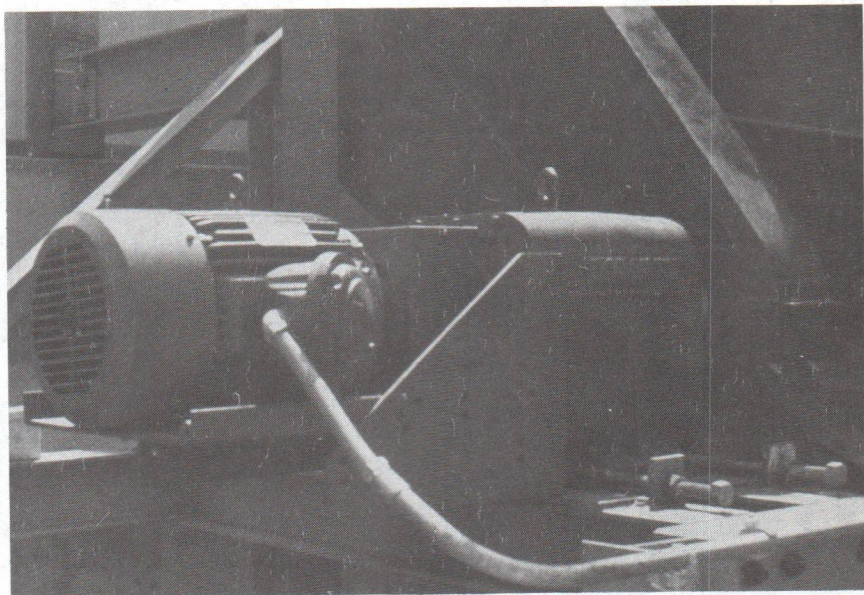
♣ Made-to-order

# Accessories

## DODGE TXM

Auxiliary Seal Kits  
Backstop Assemblies  
Cooling Fans  
Heat Exchanger Cooling Packages  
Motor Mounts (Sizes 100-600)  
Motor Mounts (Sizes 700-1200)  
Reducer MD Baseplates  
Reducer HD Baseplates  
Slide Bases

G4-31  
G4-30 & G4-31  
G4-33  
G4-33  
G4-24  
G4-25  
G4-26 & G4-27  
G4-28 & G4-29  
G4-32



TXM600 with explosion proof motor mounted on scoop with slide base (bucket elevator).

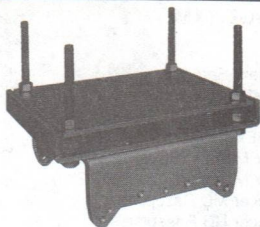
**Note:** Guards have been removed for photographic purposes.



# Accessories

## DODGE TXM Concentric Reducer Motor Mounts (Sizes 100-600)

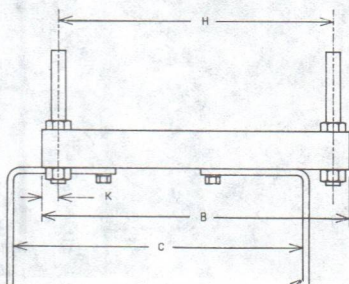
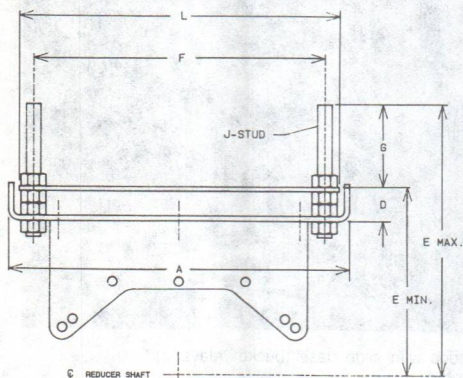
The TXM Motor Mount is a rugged all steel unit which requires no drilling or foundation. It bolts directly to the top of the TXM Concentric Shaft Reducer. Each mount accommodates a wide variety of NEMA AC motor frames. For initial belt installation the adjusting screws can be set at a minimum position which offers adequate future V-belt adjustment.



Motor Mount No.	Part Number	Wt.	For Reducer No.	To Accommodate NEMA Motor Frame Sizes*	A	B	C Nom.	D	E <sup>Δ</sup>		F	G
									Min.	Max.		
TXM1	014368	35	TXM100	143 thru 182	14 $\frac{5}{8}$	11	7 $\frac{1}{16}$	1 $\frac{19}{32}$	8.28	11.78	12	4 $\frac{5}{8}$ <sup>64</sup>
TXM2			TXM200	143 thru 215			9 $\frac{1}{16}$		8.47	11.97		
TXM3	014369	69	TXM300	143 thru 286	18 $\frac{5}{8}$	17	10 $\frac{7}{16}$	1 $\frac{25}{32}$	9.28	13.28	15 $\frac{1}{2}$	5 $\frac{37}{64}$
TXM4			TXM400	143 thru 286			12 $\frac{3}{32}$		9.13	13.13		
TXM5	014373	88	TXM500	143 thru 324	20 $\frac{1}{2}$	18 $\frac{1}{2}$	13 $\frac{3}{4}$	1 $\frac{27}{32}$	10.22	14.22	17 $\frac{1}{2}$	5 $\frac{33}{64}$
TXM6			TXM600	143 thru 324	20 $\frac{1}{2}$	18 $\frac{1}{2}$	16		11.22	15.22	17 $\frac{1}{2}$	5 $\frac{33}{64}$

Motor Mount No.	H	J-Stud		K	L
		Dia.	Lgth.		
TXM1	9 $\frac{1}{4}$	$\frac{5}{8}$	7	$\frac{7}{8}$	13 $\frac{1}{2}$
TXM2					
TXM3	14 $\frac{1}{4}$	$\frac{3}{4}$	8	1	17 $\frac{1}{2}$
TXM4					
TXM5	16 $\frac{1}{2}$	$\frac{3}{4}$	8	1	19 $\frac{1}{4}$
TXM6					

- \* Select motor size to suit horsepower requirements. See table 10 for V-belt center distances.
- Δ Provides for V-belt adjustment.

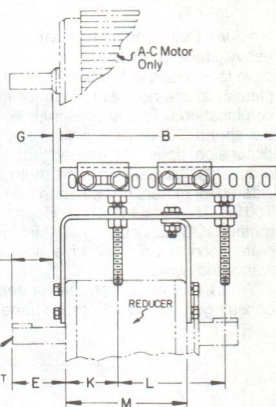
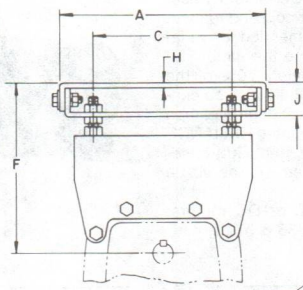
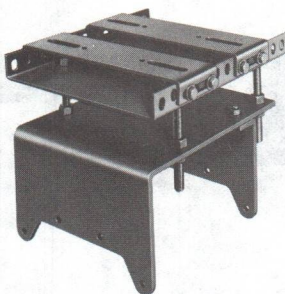


\*Turn support 180°  
when mounting on TXM100

Table 10—V-belt Center Distances for TXM Motor Mounts

Motor Mount No.	For Basic Unit Size	Center Distances for NEMA Motor Frames											
		143T 145T		182T 184T		213T 215T		254T 256T		284T 286T		324T 326T	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
TXM1	100	12.78	16.28	13.78	17.28								
TXM2	200	12.97	16.47	13.97	17.97	14.72	18.22						
TXM3	300	13.78	17.28	14.78	18.28	15.53	19.03	16.53	20.03	17.28	20.78		
TXM4	400	13.63	17.13	14.63	18.13	15.38	18.88	16.38	19.88	17.13	20.63		
TXM5	500	14.72	18.22	15.72	19.22	16.47	19.97	17.47	20.97	18.22	21.72	19.22	22.72
TXM6	600	15.73	19.22	16.72	20.22	17.47	20.97	18.47	21.97	19.22	22.72	20.22	23.72

## DODGE TXM Concentric Reducer Motor Mounts (Cont'd.) (Sizes 700-1200)



TXM Motor Mounts

TXM Motor Mounts																				
Mount No. ▲	Est. Wt. (Lbs.)	For Basic Reducer No.	To Accommodate New Style NEMA Motor Frames*	A	B	C	D			E			F▲		G	H	J	K	L	M
							When Used On:		Triple Reduction Units	When Used On:		Triple Reduction Units								
							Double Reduction Units	Triple Reduction Units		Double Reduction Units	Triple Reduction Units		Min.	Max.						
TXM7	100	700	182T thru 284T	15 1/4	16 1/2	11	4 13/16	3 7/8	5 5/8	4 11/16	15 7/8	20 3/4	13 1/8	1/4	2 1/4	3 1/2	8 1/2	17 1/2		
			286T thru 326T	15 1/4	16 1/2	11	4 13/16	3 7/8	5 5/8	4 11/16	15 7/8	20 3/4	29 1/4	1/4	2 1/4	3 1/2	8 1/2	17 1/2		
TXM8	120	800	184T thru 284T	15 1/4	16 1/2	11	5 7/8	4	6 1/2	5 1/8	16 7/8	21 1/8	9 1/8	1/4	2 1/4	3	8 1/2	19 1/2		
			286T thru 326T	15 1/4	16 1/2	11	5 7/8	4	6 1/2	5 1/8	16 7/8	21 1/8	9 1/8	1/4	2 1/4	3	8 1/2	19 1/2		
TXM9-8	140	900	184T thru 284T	15 1/4	16 1/2	11	5 5/8	4 1/4	7	5 5/8	18 1/8	23 1/8	1 1/4	1/4	2 1/4	3 1/8	8 1/2	21 1/8		
			286T thru 326T	15 1/4	16 1/2	11	5 5/8	4 1/4	7	5 5/8	18 1/8	23 1/8	2 1/8	1/4	2 1/4	3 1/8	8 1/2	21 1/8		
TXM9-11	180	900	364T thru 365T	25	24	18 1/2	5 5/8	4 1/4	7	5 5/8	19 1/8	24 1/8	3 1/8	1/2	3 1/8	5 1/2	11 1/4	21 1/8		
TXM10-8	160	1000	215T thru 284T	15 1/4	16 1/2	11	6 1/8	4 3/8	7 3/8	5 7/8	19 1/8	24 1/8	1 1/4	1/4	2 1/4	3 1/8	8 1/2	23 1/8		
			286T thru 326T	15 1/4	16 1/2	11	6 1/8	4 3/8	7 3/8	5 7/8	19 1/8	24 1/8	3	1 1/4	2 1/4	3 1/8	8 1/2	23 1/8		
TXM10-11	200	1000	364T thru 405T	25	24	18 1/2	6 1/8	4 3/8	7 3/8	5 7/8	21	26	2 1/8	1/2	3 1/8	5 1/2	11 1/4	23 1/8		
TXM11-8 1/4	180	1100	254T thru 256T	18 1/4	19	11	6 1/2	4 1/2	7 1/8	5 1/8	20 1/8	25 7/8	2 7/8	1/4	2 1/4	4 1/2	8 1/2	25 1/8		
TXM11-11	220	1100	284T thru 405T	25	24	18 1/2	6 1/2	4 1/2	7 1/8	5 1/8	22	27	2 7/8	1/2	3 1/4	4 1/2	16 1/8	25 1/8		
TXM12-6 1/4	200	1200	254T thru 256T	18 1/4	19	11	7	4 1/2	8 1/8	5 1/8	22 1/2	27	2	1/4	2 1/4	2 1/8	10 1/4	27 1/8		
TXM12-11	240	1200	284T thru 405T	25	24	18 1/2	7	4 1/2	8 1/8	5 1/8	23 1/8	28 1/8	4 1/8	1/2	3 1/2	6 1/8	16 1/8	27 1/8		

Note—Unless otherwise specified, dimensions are identical whether motor mount is used on a double or triple reduction unit.

\* Select motor size to suit horsepower requirements. See table 10 for V-belt center distances.

▲ Provides for V-belt adjustment.

TXM Motor Mounts—Part Numbers

Motor Mount No.	Part No.	Motor Mount No.	Part No.
TXM7	014255	—	—
TXM8	014256	—	—
TXM9-8	014257	TXM9-11	014262
TXM10-8	014258	TXM10-11	014263
TXM11-6 1/4	014259	TXM11-11	014264
TXM12-6 1/4	014260	TXM12-11	014265

Table 11—V-Belt Center Distances for TXM Motor Mounts▲

Motor Mount No.	For Basic Unit Size	Center Distances for NEMA Motor Frames:															
		182T 184T				213T 215T				254T 256T				284T 286T			
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
TXM7	700	20.4	25.1	21.1	25.9	22.1	26.9	22.9	27.6	23.9	28.6	24.9	29.6	26.6	31.3	27.6	32.3
TXM8	800	21.4	26.1	22.1	26.9	23.1	27.9	23.9	28.6	24.9	29.6	26.6	31.3	27.6	32.3	28.6	33.3
TXM9	900	23.1	27.8	23.8	28.6	24.8	29.6	25.6	30.3	26.6	31.3	27.6	32.3	28.6	33.3	29.6	34.3
TXM10	1000	25.2	29.9	26.2	30.9	26.9	31.7	27.9	32.7	28.9	33.7	29.9	34.7	30.9	35.7	31.9	36.7
TXM11	1100	27.2	31.9	28.2	32.9	29.2	34.0	30.2	35.0	31.2	36.0	32.2	37.0	33.2	38.0	34.2	39.0
TXM12	1200	28.8	33.3	29.8	34.3	30.8	35.3	31.8	36.3	32.8	37.3	33.8	38.3	34.8	39.3	35.8	40.3

▲ 19.0 Min./23.8 Max. center distance required for 143T and 145T motor frame.

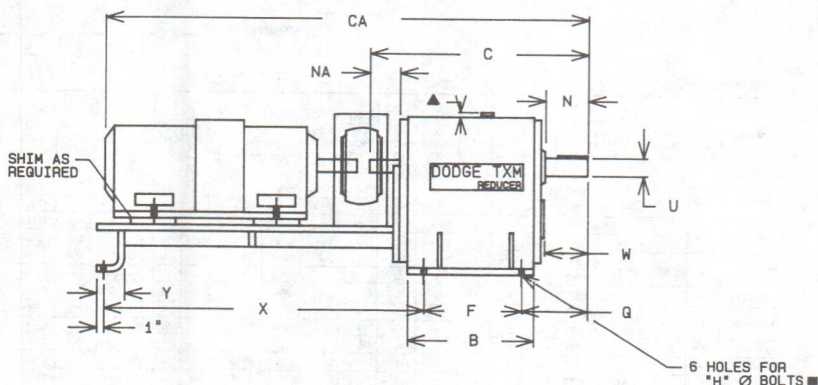
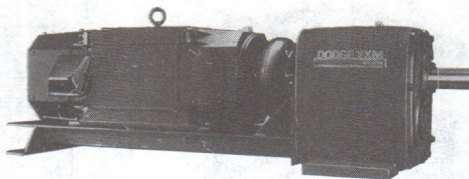


# Accessories

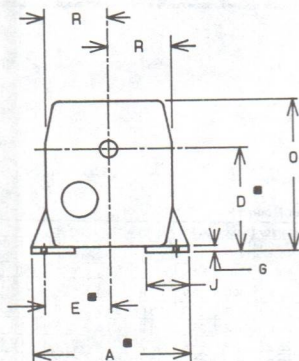
## DODGE TXM Concentric Reducer MD Baseplates

Medium Duty Baseplates are rigid units fabricated of heavy steel, providing a sturdy cross-braced mounting base for support of Medium Duty AC or DC motors. Baseplates provide rigid alignment for motor/coupling/reducer combinations. This accessory is recommended for variable speed DC or AC applications where the motor "D" dimension does not exceed approximately 70% of the reducer "D" dimension. This method should also be considered for motors heavier than the reducer or greater than 700 lbs. The combination of a factory mounted RELIANCE motor, DODGE coupling, TXM reducer, and TXM baseplate becomes a total drive package as well as single warranted system.

When mounting variable speed AC or DC motors, consult general guidelines on page G4-56 & 57.



MOTOR DIMENSIONS ARE APPROX.



# **DODGE TXM Reducer/MD—Baseplate for AC or DC Motors**

**Sizes 100 Thru 600 \***

Basic Unit Size	A ■	B	C		D ■	E ■	F	G	H ■	J	N	NA	
			Dbl. Reduction Units	Tpl. Reduction Units								Dbl. Reduction Units	Tpl. Reduction Units
100	11 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>16</sub>	13 <sup>57</sup> / <sub>64</sub>	13 <sup>57</sup> / <sub>64</sub>	6.30	5.20	4.00	11 <sup>11</sup> / <sub>16</sub>	1/2	2 <sup>7</sup> / <sub>8</sub>	3	2	2
200	12 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	7.00	5.60	5.34	3/16	5/8	3 <sup>3</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>
300	15 <sup>1</sup> / <sub>4</sub>	8	18 <sup>7</sup> / <sub>16</sub>	18 <sup>7</sup> / <sub>16</sub>	8.50	6.60	6.10	1 <sup>5</sup> / <sub>16</sub>	3/4	4 <sup>9</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>
400	16 <sup>7</sup> / <sub>8</sub>	9	21 <sup>9</sup> / <sub>16</sub>	21 <sup>9</sup> / <sub>16</sub>	9.60	7.30	7.10	1 <sup>1</sup> / <sub>8</sub>	7/8	4 <sup>1</sup> / <sub>2</sub>	4 <sup>29</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>
500	18 <sup>5</sup> / <sub>8</sub>	12	24 <sup>15</sup> / <sub>16</sub>	24 <sup>15</sup> / <sub>16</sub>	9.96	8.20	10.00	1 <sup>1</sup> / <sub>4</sub>	1	4 <sup>3</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>
600	21 <sup>3</sup> / <sub>8</sub>	13 <sup>13</sup> / <sub>16</sub>	28 <sup>1</sup> / <sub>32</sub>	27 <sup>9</sup> / <sub>32</sub>	11.66	9.30	11.30	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>16</sub>
Basic Unit Size	O	Q	R	W	Y	U		UA					
						Dbl. Reduction Units		Tpl. Reduction Units					
						Shaft Dia.	Key Size	Shaft Dia.	Key Size	Shaft Dia.	Key Size		
100	10 <sup>9</sup> / <sub>64</sub>	5 <sup>3</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>64</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	3/8 × 3/8 × 2 <sup>1</sup> / <sub>4</sub>	1	1/4 × 1/4 × 1 <sup>9</sup> / <sub>16</sub>	1	1/4 × 1/4 × 1 <sup>9</sup> / <sub>16</sub>		
200	11	6 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	3 <sup>17</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	3/8 × 3/8 × 2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	1/4 × 1/4 × 2	1 <sup>1</sup> / <sub>8</sub>	1/4 × 1/4 × 2		
300	13 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>16</sub>	4	2 <sup>3</sup> / <sub>4</sub>	2	1/2 × 1/2 × 3	1 <sup>3</sup> / <sub>8</sub>	5/16 × 5/16 × 2 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	5/16 × 5/16 × 2 <sup>1</sup> / <sub>2</sub>		
400	14 <sup>15</sup> / <sub>32</sub>	8 <sup>7</sup> / <sub>64</sub>	6 <sup>1</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	3	2 <sup>1</sup> / <sub>2</sub>	5/8 × 5/8 × 3 <sup>15</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	3/8 × 3/8 × 2 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	3/8 × 3/8 × 2 <sup>1</sup> / <sub>2</sub>		
500	15 <sup>7</sup> / <sub>16</sub>	8	7 <sup>7</sup> / <sub>16</sub>	4 <sup>47</sup> / <sub>64</sub>	3	2 <sup>3</sup> / <sub>4</sub>	5/8 × 5/8 × 4 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	1/2 × 1/2 × 3 <sup>1</sup> / <sub>2</sub>	1 <sup>7</sup> / <sub>8</sub>	3/8 × 3/8 × 3		
600	18 <sup>5</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>5</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>4</sub>	3	3 <sup>1</sup> / <sub>4</sub>	3/4 × 3/4 × 5 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	1/2 × 1/2 × 3 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	3/8 × 3/8 × 2 <sup>1</sup> / <sub>2</sub>		
Basic Unit Size	Dimensional Ref.	RPM III Frame Motor Sizes											
		1810	1811	1812	2113	2512	2812	3210	3212				
100	CA	34 <sup>1</sup> / <sub>8</sub>	37 <sup>7</sup> / <sub>8</sub>	39 <sup>3</sup> / <sub>8</sub>	—	—	—	—	—				
	X	27 <sup>3</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	—	—	—	—	—				
200	CA	36 <sup>1</sup> / <sub>2</sub>	40 <sup>1</sup> / <sub>2</sub>	42	—	—	—	—	—				
	X	27 <sup>3</sup> / <sub>4</sub>	27 <sup>3</sup> / <sub>4</sub>	27 <sup>3</sup> / <sub>4</sub>	—	—	—	—	—				
300	CA	38 <sup>3</sup> / <sub>4</sub>	42 <sup>5</sup> / <sub>8</sub>	44 <sup>1</sup> / <sub>4</sub>	50	—	—	—	—				
	X	28 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>2</sub>	34 <sup>1</sup> / <sub>4</sub>	—	—	—	—				
400	CA	41 <sup>7</sup> / <sub>8</sub>	45 <sup>3</sup> / <sub>4</sub>	47 <sup>1</sup> / <sub>4</sub>	53 <sup>1</sup> / <sub>8</sub>	56 <sup>1</sup> / <sub>2</sub>	—	—	—				
	X	29 <sup>3</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>8</sub>	35 <sup>1</sup> / <sub>8</sub>	38 <sup>3</sup> / <sub>8</sub>	—	—	—				
500	CA	45 <sup>1</sup> / <sub>4</sub>	49 <sup>1</sup> / <sub>8</sub>	50 <sup>5</sup> / <sub>8</sub>	56 <sup>1</sup> / <sub>2</sub>	59 <sup>7</sup> / <sub>8</sub>	—	—	—				
	X	30	30	30	35 <sup>3</sup> / <sub>4</sub>	39	—	—	—				
600	CA	48 <sup>5</sup> / <sub>8</sub>	52 <sup>5</sup> / <sub>8</sub>	54 <sup>1</sup> / <sub>8</sub>	59 <sup>7</sup> / <sub>8</sub>	63 <sup>3</sup> / <sub>8</sub>	68 <sup>1</sup> / <sub>4</sub>	64 <sup>7</sup> / <sub>8</sub>	69 <sup>7</sup> / <sub>8</sub>				
	X	31	31	31	36 <sup>3</sup> / <sub>4</sub>	40	42 <sup>7</sup> / <sub>8</sub>	41 <sup>7</sup> / <sub>8</sub>	46 <sup>7</sup> / <sub>8</sub>				

1 1/2" will clear breather on all size units.

Dimension applies to both reducer & MD—Baseplate.

MD Baseplates for Sizes 700-1200, available upon request.

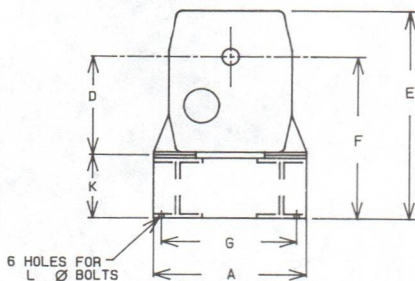
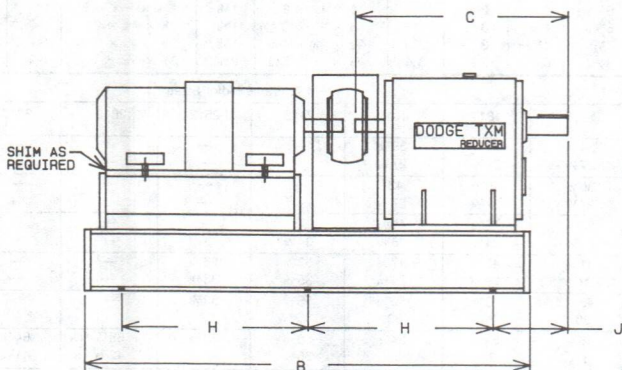


# Accessories

## DODGE TXM Concentric Reducer HD Baseplates

Heavy Duty Baseplates are rigid units fabricated of heavy steel, providing a sturdy mounting base for motor/coupling/reducer combinations. This accessory is recommended for large motors, where the motor weight exceeds the reducer weight or 700 lbs. and for variable speed DC or AC application regardless of the motor weight. The combination of a factory mounted RELIANCE motor, DODGE coupling, TXM reducer and baseplate becomes a total drive package as well as a single warranted system.

When mounting variable speed AC or DC motors, consult general guidelines on page G4-56 & 57.



# DODGE TXM Reducer RPM III HD Baseplates<sup>▲</sup>

Reducer/Motor*		A	B	C	D	E	F	G	H	J	K	L-Bolts
100	1811 1812	11¾	33½	13 <sup>57</sup> / <sub>64</sub>	6 <sup>5</sup> / <sub>16</sub>	16 <sup>21</sup> / <sub>32</sub>	12 <sup>3</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>32</sub>	14¾	5 <sup>3</sup> / <sub>64</sub>	6½	½
100	2113	11¾	43¼	13 <sup>57</sup> / <sub>64</sub>	6 <sup>5</sup> / <sub>16</sub>	16 <sup>21</sup> / <sub>32</sub>	12 <sup>3</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>32</sub>	19 <sup>5</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>64</sub>	6½	½
200	1811 1812	12¾	36	16¼	7	17½	13½	11 <sup>3</sup> / <sub>16</sub>	16	6 <sup>1</sup> / <sub>8</sub>	6½	5/8
200	2113	12¾	45	16¼	7	17½	13½	11 <sup>3</sup> / <sub>16</sub>	20½	6 <sup>1</sup> / <sub>8</sub>	6½	5/8
200	2512	12¾	48	16¼	7	17½	13½	11 <sup>3</sup> / <sub>16</sub>	22	6 <sup>1</sup> / <sub>8</sub>	6½	5/8
300	1811 1812	15¼	37½	18 <sup>7</sup> / <sub>16</sub>	8½	19 <sup>7</sup> / <sub>8</sub>	15	13 <sup>3</sup> / <sub>16</sub>	16¾	6 <sup>7</sup> / <sub>8</sub>	6½	¾
300	2113	15¼	46	18 <sup>7</sup> / <sub>16</sub>	8½	19 <sup>7</sup> / <sub>8</sub>	15	13 <sup>3</sup> / <sub>16</sub>	21	6 <sup>7</sup> / <sub>8</sub>		¾
300	2512	15¼	50¼	18 <sup>7</sup> / <sub>16</sub>	8½	19 <sup>7</sup> / <sub>8</sub>	15	13 <sup>3</sup> / <sub>16</sub>	22½	6 <sup>7</sup> / <sub>8</sub>	6½	¾
300	2812	15¼	56	18 <sup>7</sup> / <sub>16</sub>	8½	19 <sup>7</sup> / <sub>8</sub>	15	13 <sup>3</sup> / <sub>16</sub>	25	6 <sup>7</sup> / <sub>8</sub>	6½	¾
400	1811 1812	16 <sup>7</sup> / <sub>8</sub>	40½	21 <sup>9</sup> / <sub>16</sub>	9 <sup>19</sup> / <sub>32</sub>	22 <sup>3</sup> / <sub>32</sub>	18 <sup>3</sup> / <sub>32</sub>	14 <sup>19</sup> / <sub>32</sub>	17¼	8 <sup>7</sup> / <sub>64</sub>	8½	7/8
400	2113	16 <sup>7</sup> / <sub>8</sub>	50	21 <sup>9</sup> / <sub>16</sub>	9 <sup>19</sup> / <sub>32</sub>	22 <sup>3</sup> / <sub>32</sub>	18 <sup>3</sup> / <sub>32</sub>	14 <sup>19</sup> / <sub>32</sub>	22	8 <sup>7</sup> / <sub>64</sub>	8½	7/8
400	2512	16 <sup>7</sup> / <sub>8</sub>	55	21 <sup>9</sup> / <sub>16</sub>	9 <sup>19</sup> / <sub>32</sub>	22 <sup>3</sup> / <sub>32</sub>	18 <sup>3</sup> / <sub>32</sub>	14 <sup>19</sup> / <sub>32</sub>	24	8 <sup>7</sup> / <sub>64</sub>	8½	7/8
400	2812	16 <sup>7</sup> / <sub>8</sub>	56¾	21 <sup>9</sup> / <sub>16</sub>	9 <sup>19</sup> / <sub>32</sub>	22 <sup>3</sup> / <sub>32</sub>	18 <sup>3</sup> / <sub>32</sub>	14 <sup>19</sup> / <sub>32</sub>	25½	8 <sup>7</sup> / <sub>64</sub>	8½	7/8
DR500	1811 1812	18 <sup>5</sup> / <sub>8</sub>	44	24 <sup>15</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	19	8	8½	1
DR500	2113	18 <sup>5</sup> / <sub>8</sub>	53	24 <sup>15</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	23½	8	8½	1
DR500	2512	18 <sup>5</sup> / <sub>8</sub>	56	24 <sup>15</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	25	8	8½	1
DR500	2812	18 <sup>5</sup> / <sub>8</sub>	60¼	24 <sup>15</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	27½	8	8½	1
DR500	3210 3212	18 <sup>5</sup> / <sub>8</sub>	64¾	24 <sup>15</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	29¾	8	8½	1
TR500	1811 1812	18 <sup>5</sup> / <sub>8</sub>	43¼	24 <sup>5</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	18 <sup>5</sup> / <sub>8</sub>	8	8½	1
TR500	2113	18 <sup>5</sup> / <sub>8</sub>	52½	24 <sup>5</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	23¼	8	8½	1
TR500	2512	18 <sup>5</sup> / <sub>8</sub>	55	24 <sup>5</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	24½	8	8½	1
TR500	2812	18 <sup>5</sup> / <sub>8</sub>	59½	24 <sup>5</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	26¾	8	8½	1
TR500	3210 3212	18 <sup>5</sup> / <sub>8</sub>	65	24 <sup>5</sup> / <sub>16</sub>	9 <sup>31</sup> / <sub>32</sub>	23 <sup>15</sup> / <sub>16</sub>	18 <sup>15</sup> / <sub>32</sub>	16 <sup>13</sup> / <sub>32</sub>	29½	8	8½	1
DR600	1811 1812	21 <sup>3</sup> / <sub>8</sub>	46	28 <sup>11</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	20	9 <sup>13</sup> / <sub>64</sub>	8½	1½
DR600	2113	21 <sup>3</sup> / <sub>8</sub>	55¾	28 <sup>11</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	24 <sup>7</sup> / <sub>8</sub>	9 <sup>13</sup> / <sub>64</sub>	8½	1½
DR600	2512	21 <sup>3</sup> / <sub>8</sub>	58½	28 <sup>11</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	26¼	9 <sup>13</sup> / <sub>64</sub>	8½	1½
DR600	2812	21 <sup>3</sup> / <sub>8</sub>	63½	28 <sup>11</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	28¾	9 <sup>13</sup> / <sub>64</sub>	8½	1½
DR600	3210 3212	21 <sup>3</sup> / <sub>8</sub>	67	28 <sup>11</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	30½	9 <sup>13</sup> / <sub>64</sub>	8½	1½
DR600	3612	21 <sup>3</sup> / <sub>8</sub>	71	28 <sup>11</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	32½	9 <sup>13</sup> / <sub>64</sub>	8½	1½
TR600	1811 1812	21 <sup>3</sup> / <sub>8</sub>	45	27 <sup>9</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	19½	9 <sup>13</sup> / <sub>64</sub>	8½	1½
TR600	2113	21 <sup>3</sup> / <sub>8</sub>	54	27 <sup>9</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	24	9 <sup>13</sup> / <sub>64</sub>	8½	1½
TR600	2512	21 <sup>3</sup> / <sub>8</sub>	57	27 <sup>9</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	25½	9 <sup>13</sup> / <sub>64</sub>	8½	1½
TR600	2812	21 <sup>3</sup> / <sub>8</sub>	62½	27 <sup>9</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	28¼	9 <sup>13</sup> / <sub>64</sub>	8½	1½
TR600	3210 3212	21 <sup>3</sup> / <sub>8</sub>	66½	27 <sup>9</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	20¼	9 <sup>13</sup> / <sub>64</sub>	8½	1½
TR600	3612	21 <sup>3</sup> / <sub>8</sub>	71½	27 <sup>9</sup> / <sub>32</sub>	11 <sup>21</sup> / <sub>32</sub>	26 <sup>21</sup> / <sub>32</sub>	20 <sup>5</sup> / <sub>32</sub>	18 <sup>19</sup> / <sub>32</sub>	32¾	9 <sup>13</sup> / <sub>64</sub>	8½	1½

▲ For Dimensions on HD Baseplates for sizes 700-1200, consult RELIANCE.

\* All motors are suffixed by "ATZ"



# Accessories

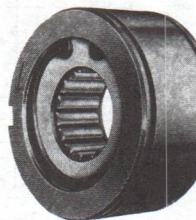
## DODGE TXM Concentric Reducer Backstop Assemblies

Optional backstops are offered for service conditions that require the prevention of reverse direction. On sizes 100 through 800, backstops are internally installed on the low speed pinion shaft. Since reducer oil lubricates the backstop, no additional lubrication is required.

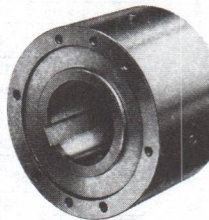
On sizes 900 through 1200, backstops are externally mounted on a special high speed shaft which is supplied with additional length to provide adequate shaft extension. On sizes 600-800, external backstops are available upon request. External backstops cannot be used on fan cooled reducers.

When ordering a reducer with a backstop, it will be necessary to indicate on the order the desired direction of rotation of the output shaft, either by designating "CW" for clockwise, or "CCW" for counter-clockwise, when looking at the output shaft.

**WARNING: Backstops are not recommended for applications involving energy absorption and shock or torque loads in excess of reducer ratings nor on applications such as chair lifts, amusement rides, etc., and where the safety of persons or property is dependent on their function. On such applications, other safety devices must be provided.**



**INTERNAL**  
Sizes 100 thru 800



**EXTERNAL**  
Sizes 900 thru 1200

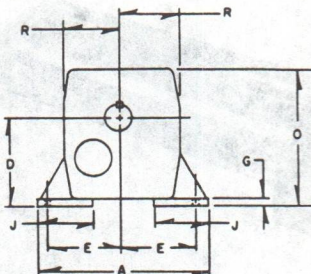
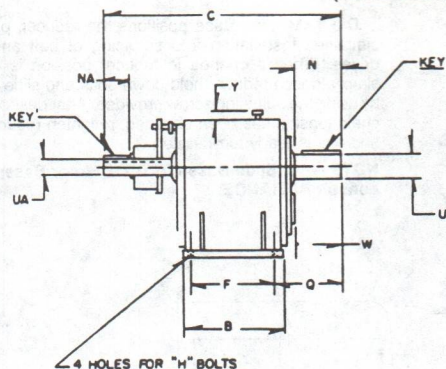
Basic Unit Size	Part No. Internal Backstops
TXM100	014531
TXM200	014532
TXM300	014533
TXM400	014534
TXM500	014535
TXM600	014536
TXM700	014537
TXM800	014538

### External Backstops

Basic Unit Size	Part No. External Backstops*	
	Double	Triple
TXM600	014953	014953
TXM700	014954	014954
TXM800	014955	014956
TXM900	014945	014946
TXM1000	014947	014948
TXM1100	014949	014950
TXM1200	014951	014952

\*External backstop assy. does not include special input shaft. See page G4-31 for dimensions for special high speed shafts to be used with external backstops.

## DODGE TXM Concentric Reducer External Backstops (Sizes 600-1200)



GEAR CASE	A	B	D	E	F	G	H	J	O	R	Y	N	Q	U(1)	KEY		
															SO	LGTH	W
DR&TR600	21.38	13.81	11.66	9.30	11.30	1.38	1.12	4.50	18.16	8.16	1.50	6.50	9.20	3.250	.75	5.50	6.25
DR&TR700	23.00	15.80	12.78	10.20	13.20	2.00	1.25	6.00	19.48	9.12	1.50	7.00	10.00	3.500	.88	5.50	6.19
DR&TR800	25.20	17.50	14.80	11.20	14.70	1.00	1.38	6.62	22.55	10.12	1.50	8.00	11.30	4.000	1.00	7.00	7.33
DR&TR900	27.61	19.16	17.40	12.20	14.96	1.00	1.50	9.00	25.91	11.00	1.50	9.00	13.14	4.500	1.00	8.50	9.62
DR&TR1000	29.41	21.48	19.50	13.10	17.28	1.50	1.50	9.00	29.50	11.75	1.50	9.50	13.72	4.750	1.25	8.50	10.00
DR&TR1100	32.48	23.61	21.90	14.44	18.80	1.38	1.75	9.00	33.16	13.00	1.50	10.00	14.58	5.000	1.25	8.62	10.62
DR&TR1200	34.00	25.11	24.70	15.20	19.30	1.75	1.75	9.00	37.20	14.50	1.50	10.75	16.16	5.500	1.25	9.38	11.50

(1) NOTE: SHAFT DIA. TOL. + .000 - .0005 FOR UP TO AND INCLUDING 1.500 DIA. + .000 - .001 OVER 1.500 SHAFT DIA.

DOUBLE REDUCTION						
GEAR CASE	C	NA	UA(1)	KEY		
				SO	LGTH	
DR 600	32.09	3.75	1.998	.50	3.50	
DR 700	35.17	4.00	1.998	.50	3.50	
DR 800	39.40	4.00	2.498	.62	4.00	
DR 900	42.50	4.31	2.748	.62	3.94	
DR 1000	46.95	5.06	2.998	.75	3.94	
DR 1100	50.38	4.56	3.248	.75	3.94	
DR 1200	53.52	4.94	3.248	.75	4.50	

TRIPLE REDUCTION						
GEAR CASE	C	NA	UA(1)	KEY		
				SO	LGTH	
TR 600	31.75	2.84	1.998	.50	2.50	
TR 700	34.28	3.12	1.998	.50	2.50	
TR 800	37.35	3.00	1.998	.50	3.00	
TR 900	41.27	3.06	2.123	.50	2.50	
TR 1000	44.72	3.44	2.123	.50	3.00	
TR 1100	48.72	4.44	2.248	.50	4.00	
TR 1200	51.78	5.12	2.248	.50	4.00	

## DODGE TXM Concentric Reducer Auxiliary Seal Kits

Where exposure to dust or other external contamination is a potential problem, the optional TXM Auxiliary Seal Kit is recommended.

Kit consists of a steel cage equipped with a standard grease fitting. The cage is installed over the dual lip seal included initially with each unit. This protects seal from accidental damage and fitting permits grease purging of seal where contaminants are prevalent.

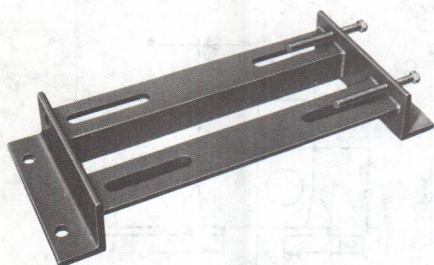
Seal Kit No.	Part Numbers	Used with Basic Unit No.	Unit Reduction
TXM1	014496	100	*
TXM2	014497	200	
TXM3	014498	300	
TXM4	014499	400	
TXM5	014500	500	Double Triple
TXM6	014501	600	
TXM7	014502	700	Double Triple
TXM8	014503	800	
TXM9	014504	900	
TXM10	014505	1000	
TXM11	014506	1100	
TXM12	014507	1200	

\* Unless otherwise specified the same kit is used on double and triple reduction units.



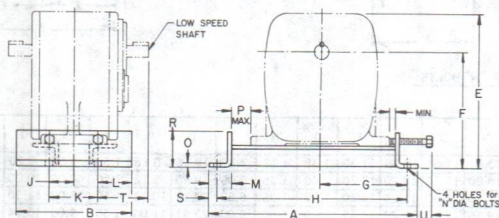
# Accessories

## DODGE TXM Concentric Reducer Slide Bases



The TXM Slide Base positions the reducer, providing simplified installation and servicing of belt and chain drives. When a change in reducer position is desired, simply loosen reducer hold-down bolts and slide reducer by using the adjusting screw provided. After desired belt or chain tension has been obtained, retighten reducer bolt and unit is ready to operate.

**NOTE—For Slide Bases for TXM Motor Baseplates, consult RELIANCE.**



### TXM Slide Bases

(Use with Reducer Numbered Same as the Base)

Reducer Size	Part Numbers	A	B	Reference			G	H	J
				E	F	T			
TXM100	014375	20 <sup>1</sup> / <sub>64</sub>	6 <sup>1</sup> / <sub>2</sub>	12 <sup>9</sup> / <sub>64</sub>	8.30	5.48	7.40	18.92	2.00
TXM200	014376	22 <sup>1</sup> / <sub>32</sub>	9	13 <sup>1</sup> / <sub>64</sub>	9.26	6.14	8.20	20.54	2.68
TXM300	014377	25 <sup>1</sup> / <sub>64</sub>	10 <sup>1</sup> / <sub>32</sub>	15 <sup>4</sup> / <sub>64</sub>	10.76	6.86	9.54	23.22	3.06
TXM400	014378	28 <sup>1</sup> / <sub>64</sub>	11 <sup>3</sup> / <sub>32</sub>	16 <sup>1</sup> / <sub>4</sub>	12.36	8.10	10.80	26.30	3.56
TXM500	014379	31 <sup>2</sup> / <sub>64</sub>	14 <sup>3</sup> / <sub>4</sub>	18 <sup>4</sup> / <sub>64</sub>	13.22	8.00	12.00	28.72	5.00
TXM600	014380	33 <sup>2</sup> / <sub>32</sub>	16 <sup>1</sup> / <sub>32</sub>	21 <sup>2</sup> / <sub>64</sub>	14.92	9.20	13.20	31.12	5.66
TXM700	014381	37 <sup>1</sup> / <sub>16</sub>	19	23 <sup>1</sup> / <sub>4</sub>	16.54	10.00	14.58	34.88	6.60
TXM800	014382	39 <sup>9</sup> / <sub>64</sub>	21	26 <sup>1</sup> / <sub>32</sub>	19.06	11.30	15.70	37.12	7.36
TXM900	014383▲	46 <sup>5</sup> / <sub>32</sub>	21 <sup>1</sup> / <sub>32</sub>	30 <sup>5</sup> / <sub>32</sub>	21.66	13.14	17.72	41.16	7.48
TXM1000	014384▲	49 <sup>7</sup> / <sub>64</sub>	23 <sup>3</sup> / <sub>32</sub>	35 <sup>4</sup> / <sub>64</sub>	25.76	13.72	18.66	44.10	8.64
TXM1100	014385▲	52 <sup>1</sup> / <sub>6</sub>	25 <sup>3</sup> / <sub>32</sub>	39 <sup>5</sup> / <sub>32</sub>	28.16	14.58	20.18	47.12	9.40
TXM1200	014386▲	53 <sup>4</sup> / <sub>64</sub>	26 <sup>1</sup> / <sub>32</sub>	43 <sup>1</sup> / <sub>32</sub>	30.96	16.16	20.94	48.64	9.66

Reducer Size	K	L	M	N	O	P	R	S	U	Wt. (Lbs.)
TXM100	4.00	1 <sup>1</sup> / <sub>4</sub>	2	1 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>64</sub>	3	4 <sup>5</sup> / <sub>64</sub>	2 <sup>5</sup> / <sub>8</sub>	14
TXM200	5.36	1 <sup>5</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>9</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>4</sub>	36
TXM300	6.12	2 <sup>3</sup> / <sub>64</sub>	2 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>7</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>9</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>4</sub>	42
TXM400	7.12	2 <sup>1</sup> / <sub>4</sub>	3	3 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>5</sup> / <sub>64</sub>	4	1	2 <sup>3</sup> / <sub>8</sub>	56
TXM500	10.00	2 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	1	5 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>64</sub>	5	1 <sup>1</sup> / <sub>8</sub>	2	96
TXM600	11.32	2 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>64</sub>	6	1 <sup>1</sup> / <sub>8</sub>	2	106
TXM700	13.20	2 <sup>9</sup> / <sub>32</sub>	4	1 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>64</sub>	6	1 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	142
TXM800	14.72	3 <sup>9</sup> / <sub>64</sub>	4	1 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>64</sub>	6	1 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	189
TXM900	14.96	3 <sup>1</sup> / <sub>8</sub>	6	1 <sup>1</sup> / <sub>2</sub>	1	5 <sup>5</sup> / <sub>64</sub>	8	2 <sup>1</sup> / <sub>2</sub>	1	290
TXM1000	17.28	3 <sup>9</sup> / <sub>32</sub>	6	1 <sup>1</sup> / <sub>2</sub>	1	6 <sup>4</sup> / <sub>64</sub>	8	2 <sup>1</sup> / <sub>2</sub>	2	350
TXM1100	18.80	3 <sup>1</sup> / <sub>32</sub>	6	1 <sup>3</sup> / <sub>4</sub>	1	6 <sup>4</sup> / <sub>64</sub>	8	2 <sup>1</sup> / <sub>2</sub>	2	380
TXM1200	19.32	3 <sup>7</sup> / <sub>8</sub>	6	1 <sup>3</sup> / <sub>4</sub>	1	6 <sup>4</sup> / <sub>64</sub>	8	2 <sup>1</sup> / <sub>2</sub>	2	392

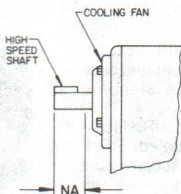
▲ Made-to-order

## DODGE TXM Concentric Reducer Cooling Fans

When the thermal capacity of the TXM Concentric Shaft Reducer is exceeded, cooling fans provide an optional, inexpensive way of using the full mechanical rating of the reducer by lowering the oil temperature thus increasing the thermal horsepower capacity. Shaded areas in the selection tables indicate the need for cooling fans referring to the thermal table on page G4-16.

For thermal capacities beyond the range of cooling fans, heat exchangers may be used—see below.

Installation of the fan is accomplished simply by attaching formed steel mounting straps to the reducer input cover. The fan assembly, which fastens to the reducer high speed shaft, is simple and compact yet designed to allow an efficient flow of air. See drawing and table 12 for usable shaft length available after fans are installed.



**Table 12—Usable Shaft Length Using Cooling Fans**

Basic Unit Size▲	NA†	Basic Unit Size▲	NA†
500	2 3/8	900	3 3/4
600	2 23/32	1000	4 1/8
700	3 1/4	1100	4 7/16
800	3 13/32	1200	4 3/4

† Usable shaft length with fan installed.  
▲ Double reduction units only.

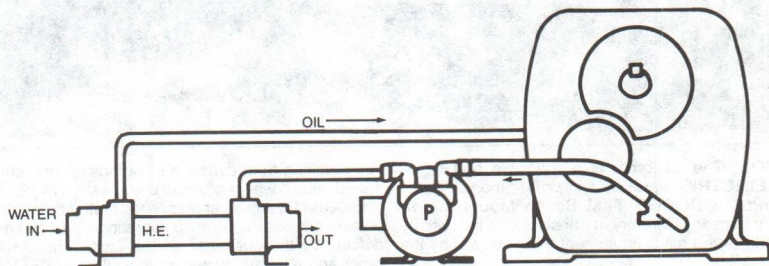
Basic Unit Size	Reducer Fan Assy.	Basic Unit Size	Reducer Fan Assy.
TXM500	014590	TXM900	014848
TXM600	014593	TXM1000	014849
TXM700	014596	TXM1100	014850
TXM800	014599	TXM1200	014851

## DODGE TXM Concentric Reducer Heat Exchanger Cooling Packages\*♣

For thermal capacities beyond the range of cooling fans, an optional heat exchanger cooling package is available to prevent overheating the reducer and allow the use of full mechanical HP rating by lowering the oil temperature to an acceptable level.

The cooling package is available to cover the basic reducer sizes 400 thru 1200. Thermally limited reducers are specified in thermal hp table on page G4-16.

Specifications for the heat exchanger motor are as follows: 1/2 hp, 60 Hz, 3 Ph, 230/460 Volt, TEFC, 56 Frame. Minimum coolant (water) flow is 3 G.P.M. based upon a maximum water temperature of 80°F. Minimum oil temperature for operation is 60°F.



\*Part Number 014148.

♣ Made-to-order



## DODGE® TXM Scoop Mount Motor/Reducers

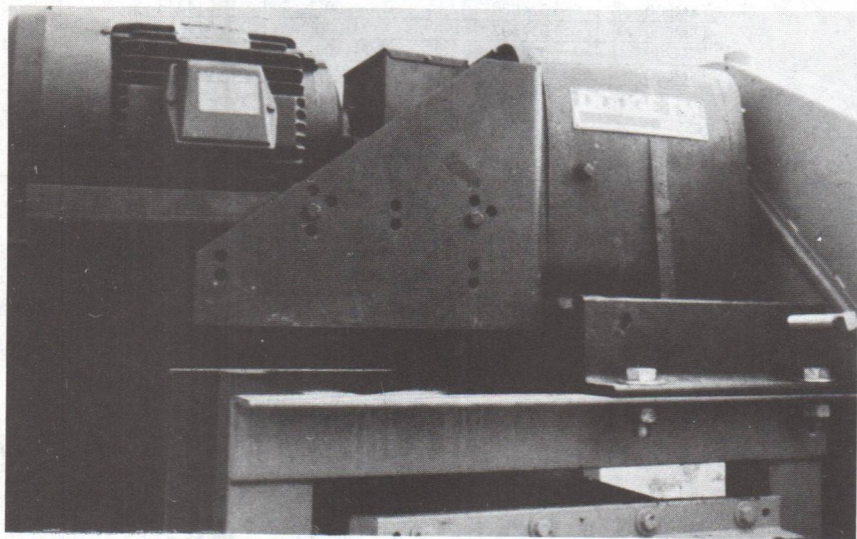
DODGE TXM Scoop Mount Motor/Reducers are available in 12 sizes, ranging from 1 to 250 horsepower. Case sizes 100-600 features AGMA standard speeds 9 to 778 rpm and case sizes 700-1200 features AGMA standard speeds from 9 to 350 rpm.

DODGE TXM Scoop Mount Motor/Reducers can be supplied with factory-mounted, RELIANCE A-C motors. Or, if preferred, scoop mount reducers may be ordered separately for use with customer supplied A-C motors. Steel or gray iron cases come with steel scoops designed to accept NEMA A-C motor frame sizes from 143T through 445T.

DODGE flexible PARA-FLEX® couplings are standard; however, DODGE Grid couplings are also available as an optional item.

Thermally limited DODGE TXM Scoop Mount Motor/Reducers should be equipped with shrouded fan or heat exchanger, as required.

**Note**—When mounting variable speed A-C or D-C motors, consult guidelines on page G4-56 & 57.



**CAUTION:** The customer is responsible and RELIANCE ELECTRIC expressly disclaims responsibility for isolating the DODGE TXM Scoop Mount Motor/Reducer from any vibratory or transient load induced by the motor or the other equipment that is driven by the motor.

The TXM Scoop Mount Motor/Reducer is expressly not warranted against failure or unsatisfactory opera-

tion resulting from dynamic vibrations of any form imposed upon it whether by the drive system in which it is installed or for any other reason, no matter how induced, unless the nature of such vibrations has been fully defined by the customer on the face of its purchase order and explicitly accepted in writing by RELIANCE ELECTRIC.

**Step 1: Determine Load Classification**—See Table 13 to determine minimum load classification for applications under normal conditions.

**Step 2: Determine Unit Size**—See table on pages G4-40 thru G4-41. Read the unit size under required hp and opposite the required low speed shaft rpm.

**Step 3: Check External Thrust and Overhung Load**—See information under this heading on next page.

**Step 4:** When mounting variable speed AC or DC motors consult guidelines on page G4-56 & 57.

**Step 5: Check Dimensions**—See applicable pages for dimensions, weights and instructions on how to order.

## Selection Example

Select a motor/reducer to be used 24 hours a day on a rotary dryer using a 7½ hp, 1750 rpm motor. The reducer output speed is 190 rpm. Reducer output shaft drives a pair of spur gears. Pinion P.D. is 7.595". Centerline of pinion is ½" from seal. No thrust is produced by the gears.

**Step 1: Determine Load Classification**—Referring to

Table 13 (under heading Mills, Rotary Type; dryer) note that Class II is shown as the classification to suit the application.

**Step 2: Determine Unit Size**—Refer to page G4-40 for the Class II tables. Find 190 rpm in left hand low speed shaft column. Follow to the right until size lines up with the 7.5 hp motor above. The unit size shown is a size 200.

**Step 3: Check External Overhung Loads**—Refer to Thrust and Overhung Load explanation on next page.

**Step 4: Check Dimensions**—See page G4-50 thru G4-52 for dimensions and weights. See below for instructions on how to order.

## Drive System Vibration on

### Constant Speed Applications

The probability of a constant speed motor operating at a resonant frequency is remote. Should this occur, however, the customer may find it desirable to add stiffening supports to the scoop bottom plate to move the resonant frequency away from the motor operating speed.

## Nomenclature

The first 4 or 5 digits are the motor frame number. Next digit indicates unit reduction (either D or T, for Double or Triple), followed by a "U" which indicates scoop mount. Next 3 or 4 digits represent unit size followed by service class (1, 2 or 3), and ratio.

Example shows a Class II double reduction size 600 motor/reducer with a 31.4:1 ratio being driven by a 254T frame motor—ordered as a 254T/DU600-2-31.4 TXM Scoop Mount Motor/Reducer.

**See ordering instructions on page G4-45 to order by part number.**

**Prices**—Request separate list price sheet and related discount schedules.

**Note**—If selection cannot be made from information herein, technical assistance is available to recommend

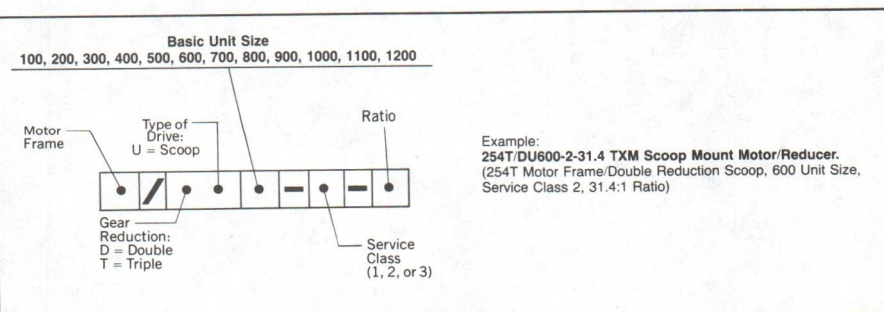
drives for a new or existing application. Submit full details to RELIANCE.

**Motor:** 1. Horsepower and RPM. 2. Enclosure (open, closed, protected, etc.) 3. Frame Size. 4. Electrical Specifications. 5. Modifications or accessories. 6. Motor to be furnished by factory or customer.

**Driven Machine:** 1. Kind (Screw Conveyor Mixer, etc.) 2. Horsepower Load. 3. Speed. 4. Service (hrs/day and reversal/min., if req'd.) 5. Ambient temperature.

**Low Speed Shaft Connection:** 1. State whether coupling, sheave, sprocket, pinion, etc. (Give type and diameter of sheave, sprocket or pinion and shaft diameters required when using a coupling). 2. Specify: a) Thrust Load, if any. b) Overhung load and location. c) Mounting position.

State if unit modifications or special features are required.





# Selection

## Thrust and Overhung Loads

**Thrust Loads** may exist in applications such as agitators, mixers and similar equipment. Calculate the direction and magnitude of the thrust load and consult Reliance.

**Overhung Loads** may be calculated by the use of the following formula:

$$\text{OHL} = \frac{126,000 \times \text{hp} \times \text{Fc} \times \text{Lf}}{\text{PD} \times \text{rpm}}$$

**Where:** OHL = Overhung Load

hp = Horsepower

Fc = Load Connection Factor: Sprocket or synchronous belt = 1.0, machined pinion and gear = 1.25 V-belt = 1.5, flat belt = 2.5

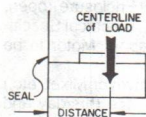
Lf = Load Location Factor: for high speed shaft see Table 3. (See additional instructions to follow.)

PD = Pitch Diameter.

rpm = Revolutions Per Minute.

**Location of Load Centerline**—To minimize overhung load and increase bearing life, load centerline should be located as close to the reducer seal as possible. For many applications, the unit will accommodate more overhung load than that which is published. Ratings have been established considering the most unfavorable conditions that will be encountered.

**Low Speed Shaft**—Using the formula above, calculate the low speed shaft OHL. The Fc values (Load Connection Factors) are shown above with the formula information. The Lf values (Load Location Factors) are tabulated in Table 4, based on distance from centerline of load to reducer seal. Compare the calculated OHL



results with published values in top portion of Table 8. If they exceed those published, consult factory or consider the next larger unit.

**Low Speed Shaft OHL Example**—An application requiring 10 hp is driven by a size DR300—17.09 unit with 100 rpm output. A 20 tooth double strand 80 chain sprocket with a 6.392" P.D. is mounted on the reducer low speed shaft with load centered 2" from the reducer seal. Calculate using the OHL formula:

$$\text{OHL} = \frac{126,000 \times 10 \times 1.0 \times 1.05}{6.392 \times 100} = 2,070 \text{ lbs.}$$

Referring to top portion of Table 8 note that the overhung load capacity for a size 300 unit @ 100 rpm is 2,800 pounds and is satisfactory for this selection.

## Table 13—Load Classifications

Application	Service		Application	Service		Application	Service	
	10 Hrs/Day	24 Hrs/Day		10 Hrs/Day	24 Hrs/Day		10 Hrs/Day	24 Hrs/Day
AGITATORS			CLASSIFIERS	II	II	DYEING MACHINERY (Textile)	II	II
Paper Mills	II	II	CLAY WORKING			ELEVATORS		
Pure Liquids	I	II	INDUSTRY	III	III	Bucket—Uniform Load	I	II
Liquids & Solids	II	II	Brick Press	III	III	Bucket—Heavy Duty	II	II
Liquids—			Briquette Machines	II	II	Bucket—Continuous	I	II
Variable Density	II	II	Clay Working Machinery	II	II	Centrifugal Discharge	I	II
APRON CONVEYORS			Pug Mills	II	II	Escalators	I	II
Uniformly Loaded or Fed	I	II	COLLECTORS (Sewage)	I	II	Freight	II	II
Heavy Duty	II	II	COMPRESSORS	I	II	Gravity Discharge	I	II
APRON FEEDERS				II	II	Man Lifts, Passenger	†	†
ASSEMBLY CONVEYORS			Reciprocating:			ESCALATORS	I	II
Uniformly Loaded or Fed	I	II	Multi-Cylinder	II	II	FANS		
Heavy Duty	II	II	Single Cylinder	III	III	Centrifugal	II	II
BALL MILLS	III	III	CONCRETE MIXERS			Cooling Towers		
BARGE HAUL PULLERS	III	III	Continuous	II	II	Induced Draft	II	II
BARKING			Intermittent	I		Forced Draft	†	†
Drums		III	CONVERTING MACHINES (Paper)		II	Induced Draft	II	II
Hydraulic Auxiliaries		III	CONVEYORS—Uniformly Loaded or Fed: Apron,			Large (Mine, etc.)	II	II
Mechanical	I	II	Assembly, Belt,			Large Industrial	II	II
BAR SCREENS (Sewage)	I	II	Bucket, Chain, Flight,			Light (Small Diameter)	I	II
BATCHERS (Textile)	II	II	Oven, Screw	I	II	FEEDERS		
BEATERS & PULPERS (Paper)		II	CONVEYORS—Heavy Duty			Apron, belt	II	II
BELT CONVEYORS	I	II	Not Uniformly Fed:			Disc	I	II
Uniformly Loaded or Fed	II	II	Apron, Assembly,			Reciprocating	III	III
Heavy Duty	II	II	Belt, Bucket, Chain,			Screw	II	II
BELT FEEDERS	II	II	Flight, Oven, Screw	II	II	FELT		
BENDING ROLLS (Machine)	II	II	Live Roll (Package)	II	II	Stretchers (Paper)		II
BLEACHERS (Paper)		II	Reciprocating, Shaker	III	III	Whippers (Paper)		III
BLOWERS			COOKERS (Brewing & Distilling) (Food)	I	II	FLIGHT		
Centrifugal	I	II	COOLING TOWER FANS	II	II	Conveyors, Uniform	I	II
Lobe	II	II	Induced Draft	II	†	Conveyors, Heavy	II	II
Vane	I	II	Forced Draft	†	†	FOOD INDUSTRY		
BOTTLING MACHINERY	I	II	COUCH (Paper)		II	Beet Slicers	II	II
BREWING & DISTILLING			CRANES & HOISTS			Bottling, Can Filling		
Bottling Machinery	I	II	Main Hoists			Mach.	I	II
Brew Kettles, Cont. Duty		II	Heavy Duty	III	III	Cereal Cookers	I	II
Can Filling Machines	I	II	Medium Duty	II	II	Dough Mixers	II	II
Cookers—Cont. Duty		II	Reversing	II	II	Meat Grinders	II	II
Mash Tubs—Cont. Duty		II	Skip Hoists	II	II	FORMING MACHINES (Metal Mills)	III	III
Scale Hoppers—			Trolley Drive	II	II	GENERATORS (Not Welding)	I	II
Frequent Starts	II	II	Bridge Drive	II	II	GRAVITY DISCHARGE		
BRICK PRESS (Clay Working)	III	III	CRUSHERS	III	III	ELEVATORS	I	II
BRIQUETTE MACHINES (Clay Working)	III	III	Ore or Stone	III	III	GRIT COLLECTORS (Sewage)	I	II
BUCKET			CUTTERS (Paper)		III	HAMMER MILLS	III	III
Conveyors Uniform	I	II	CYLINDERS (Paper)		III	INDUCED DRAFT FANS	II	II
Conveyors Heavy Duty	II	II	DEWATERING SCREENS (Sewage)	II	II	JORDANS (Paper)		II
Elevators Cont.	I	II	DISC FEEDERS	I	II	KILNS (Mills, Rotary)	II	II
Elevators Uniform	I	II	(See Brewing)			†	†	†
Elevators Heavy Duty	II	II	DISTILLING			LAUNDRY WASHERS & TUMBLERS	II	II
CALENDERS			DOUBLE ACTING PUMPS	II	II	LINE SHAFTS		
Paper		II	2 or more cylinders	†	†	Heavy Shock Load	III	III
Super (Paper)	II	II	Single Cylinder	†	II	Moderate Shock Load	II	II
Rubber	II	II	DOUGH MIXER (Food)		II	Uniform Load	I	II
Textile	II	II	DRAW BENCH (Metal Mills)			LIVE ROLL CONVEYORS	I	II
CANE KNIVES	II	II	Carriage & Main Drive	III	III	Package		
CAN FILLING MACHINES	I	II	DREDGES			LOBE BLOWERS OR COMPRESSORS	II	II
CARD MACHINES (Textile)	I	II	Cable Reels	II	II	LOG HAULS (Paper & Lumber)	III	III
CAR DUMPERS	III		Conveyors	II	II	LOOMS (Textile)	II	II
CAR PULLERS	II	II	Cutter Head Drives	III	III	LUMBER INDUSTRY		
CEMENT KILNS	†	†	Jig Drives	III	III	Barkers—Spindle Feed	II	III
CENTRIFUGAL			Maneuvering Winches	II	II	Barkers—Main Drive	III	III
Blowers, Compressors, Discharge Elevators or Pumps	I	II	Pumps	II	II	Carriage Drive	†	†
CHAIN CONVEYORS			Screen Drives	III	III	Conveyors		
Uniformly Loaded or Fed	I	II	Stackers	II	II	Burner	II	III
Heavy Duty	II	II	Utility Winches	II	II	Main or Heavy Duty	II	III
CHEMICAL FEEDERS (Sewage)	I	II	DRYERS (Paper)					
CLARIFIERS	I	II	DRYERS & COOLERS (Mills, Rotary)	II	II			

† Consult RELIANCE.



## Table 13—Load Classifications (Continued)

Application	Service		Application	Service		Application	Service	
	10 Hrs./Day	24 Hrs./Day		10 Hrs./Day	24 Hrs./Day		10 Hrs./Day	24 Hrs./Day
<b>LUMBER INDUSTRY</b>			<b>PAPER MILLS</b>			<b>SCREW CONVEYORS</b>		
Conveyors (cont.)			Agitators (Mixers)	II	II	Uniform	I	II
Main Log	III	III	Barker—Auxiliaries—Hyd.		III	Heavy Duty or Feeder	II	II
Re-Saw Merry-Go-Round	III	III	Barker, Mechanical		III	<b>SCUM BREAKERS</b>		
Slab	II	III	Barking Drum		III	(Sewage)	II	II
Transfer	II	III	Beater & Pulper		II	Aerators	†	†
Chains—Floor	II	III	Bleacher		II	Bar Screens	I	II
Chains—Greens	II	III	Calenders		II	Chemical Feeders	I	II
Cut-Off Saws—Chain	II	III	Calenders—Super		II	Collectors	I	II
Cut-Off Saws—Drag	II	III	Converting Mach.—Except Cutters-Platers		II	Dewatering Screens	I	II
Debarking Drums	III	III	Conveyors		II	Grit Collectors	I	II
Feeds—Edger	III	III	Couch		III	Scum Breakers	II	II
Feeds—Gang	III	III	Cutters, Platers		III	Slow or Rapid Mixers	II	II
Feeds—Trimmer	III	III	Cylinders		II	Sludge Collectors	I	II
Log Deck	III	III	Dryers		II	Thickeners	II	II
Log Hauls—Incline, Well Type	III	III	Felt Stretchers		II	Vacuum Filters	II	II
Log Turning Devices	III	III	Felt Whippers		II	<b>SHAKER CONVEYORS</b>		
Planer Feed	II	III	Jordans		II	SHEETERS (Rubber)	II	II
Planer Tilting Hoists	II	III	Log Haul Presses		III	<b>SINGLE ACTING PUMP</b>		
Rolls—Live—Off Bearing	III	III	Pulp Machine Reels		II	1 or 2 Cylinders	†	†
—Roll Cases	III	III	Stock Chests		II	3 or more Cylinders	II	II
Sorting Table	III	III	Suction Rolls		II	<b>SKIP HOIST</b>		
Tipple Hoist	II	III	Washers & Thickeners		II	SLAB PUSHERS	II	II
Transfers—Chain	II	III	Winders		II	SLITTERS (Metal)	II	II
Transfers—Craneway	II	III	<b>PASSENGER ELEVATORS</b>	†	†	<b>SLUDGE COLLECTORS</b>		
Tray Drives	II	III	PEBBLE MILLS	III	III	(Sewage)	I	II
<b>MACHINE TOOLS</b>			PLATE PLANERS	III	III	SOAPERS (Textile)	II	II
Auxiliary Drives	I	II	PRESSES (Paper)	II	II	SPINNERS (Textile)	II	II
Bending Rolls	II	II	PROPORTIONING PUMPS	II	II	STEERING GEARS	II	II
Main Drives	II	II	PUG MILLS (Clay)	II	II	STOCK CHESTS (Paper)	I	II
Notching Press (Belted)	†	†	PULLERS (Barge Haul)	III	III	STOKERS	I	II
Plate Planers	III	III	<b>PULP MACHINE REELS</b>			STONE CRUSHERS	III	III
Punch Press (Gearing)	III	III	<b>PUMPS</b>			SUCTION ROLLS (Paper)		II
Tapping Machines	III	III	Centrifugal	I	II	<b>TABLE CONVEYORS</b>		
<b>MANGLE (Textile)</b>	II	II	Proportioning	II	II	(Metal Mills)		
<b>MASH TUBS (Brewing &amp; Distilling)</b>			Reciprocating			Non-reversing	II	III
<b>MEAT GRINDERS (Food)</b>	II	II	Single Act., 3 or more Cyl.	II	II	Reversing		III
<b>METAL MILLS</b>			Double Act., 2 or more Cyl.	†	†	<b>TENTER FRAMES (Textile)</b>	II	II
Draw Bench Carriages & Main Drives	III	III	Single Act., 1 or 2 Cyl.	II	II	<b>TEXTILE INDUSTRY</b>		
Forming Machines	III	III	Rotary: Gear, Lobe, Vane Driven	I	II	Batches	II	II
Pinch, Dryer & Scrubber	†	†	<b>PUNCH PRESS (Gear Driven)</b>	III	III	Calenders	II	II
Rolls Reversing	II	II	<b>RECIPROCATING</b>			Card Machines	II	II
Slitters	II	II	Conveyors, Feeders	III	III	Cloth Finishing Mach., (Calenders, Dryers, Pads, Tenter, Washers)	II	II
Table Conveyors, Non-Reversing	II	III	<b>RECIPROCATING COM.</b>			Dry Cans	II	II
Reversing	III	III	PRESSORS			Dyeing Machinery	II	II
Wire Drawing & Flattening Machines	II	III	Multi-Cylinder	II	II	Knitting Machinery	†	†
Wire Winding Machines	II	II	Single Cylinder	II	III	Looms, Mangles, Nappers		II
<b>MILLS, ROTARY TYPE</b>			<b>REVERSING DIRECTION</b>	†	†	Range Drives	†	†
Ball, Pebble, Rod	II	III	APPLICATION	II	II	Soapers, Spinners	II	II
Cement Kilns	†	†	<b>ROD MILLS</b>	III	III	Tenter Frames	II	II
Coolers, Dryers, Kilns	II	II	<b>ROTARY</b>			Winders	II	II
Tumbling Barrels	III	III	Pumps: Gear, Lobe, Vane	I	II	<b>Yarn Preparatory Machinery (Cards, Spinners, Slashers)</b>	II	II
<b>MIXERS (Also see Agitators)</b>			Screens (Sand or Gravel)	II	II	<b>THICKENERS (Sewage)</b>	II	II
Concrete—Continuous	II	II	<b>RUBBER INDUSTRY</b>	III	III	<b>TUMBLING BARRELS</b>	III	III
Concrete—Intermittent	I	II	Rubber Calender	II	II	<b>VACUUM FILTERS</b>		
Constant Density	I	II	Rubber Mill (2 or more)	II	II	(Sewage)	II	II
Variable Density	I	II	Sheeter	II	II	<b>VANE BLOWERS</b>	I	II
<b>NAPPERS (Textile)</b>	II	II	Tire Building Machines	†	†	<b>WINCHES (Dredges)</b>	II	II
<b>OIL INDUSTRY</b>			Tire Tube Press	II	II	<b>WINDERS</b>		
Chillers	II	II	Openers	†	†	(Paper)	II	II
Oil Well Pumping	†	†	Tubers & Strainers	II	II	(Textile)	II	II
Paraffin Filter Press	II	II	<b>SAND MILLERS</b>	†	†	<b>WINDLASS</b>	II	II
Rotary Kilns	II	III	<b>SCREENS</b>			<b>WIRE</b>		
<b>ORE CRUSHERS</b>	III	III	Air Washing	I	II	Drawing Machines	II	III
<b>OVEN CONVEYORS</b>			Rotary—Sand or Gravel	II	II	Winding Machines	II	II
Uniform	I	II	Traveling Water Intake	I	II			
Heavy Duty	II	II						

† Consult RELIANCE.

\* When mounting variable speed AC or DC motors, consult pages G4-56 & 57.

**Note:** It is recommended that class numbers for special applications be agreed upon by user and factory when variations of the table may be required. Special conditions can be any special type of prime mover, starting or stopping conditions, system conditions, ambient conditions, lubrications, overloads, overspeeds, brake equipped applications, high inertia and reversing loads.

## CLASS I (1.0 Service Factor) Driven by 1750 rpm Motors

Nom- inal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Basic Unit Size									
			Used with Motor Horsepower of: (With Frame Size References)									
			1	1.5	2	3	5	7.5	10	15	20	25
			143T■	145T■	145T■	182T■	184T■	213T■	215T■	254T■	256T■	284T■
2.25	778	DOUBLE	100	100	100	100	100	100	100	200	200	300
2.75	636		100	100	100	100	100	100	100	200	200	300
3.37	519		100	100	100	100	100	100	200	200	300	300
4.13	424		100	100	100	100	100	100	200	200	300	300
5.06	350		100	100	100	100	100	200	200	200	200	300
6.20	280		100	100	100	100	100	200	200	200	300	300
7.59	230		100	100	100	100	100	200	200	200	300	300
9.30	190		100	100	100	100	200	200	200	300	300	300
11.39	155		100	100	100	100	200	200	200	300	300	400
13.95	125		100	100	100	100	200	200	300	300	400	400
17.09	100		100	100	100	100	200	200	300	300	400	400
20.93	84		100	100	100	200	200	300	300	400	400	500
25.63	68	TRIPLE	100	100	100	200	200	300	300	400	400	500
31.39	56		100	100	100	200	300	300	300	400	500	600
38.44	45		100	100	200	200	300	400	500	600	600	700
47.08	37		100	100	200	200	300	400	500	600	600	700
57.66	30		100	100	200	300	300	400	500	600	600	800
70.62	25		100	200	200	300	400	500	500	600	800	800
86.50	20		100	200	300	300	400	500	600	600	800	800
105.9	16.5		200	200	300	300	400	500	600	800	800	900
129.7	13.5		200	300	300	400	500	600	600	800	900	900
158.9	11		200	300	300	400	500	600	800	800	900	1000
194.6	9		300	300	400	400	600	600	800	900	1000	1100
2.25	778	DOUBLE	30	40	50	60	75	100	125	150	200	250
			286T■	324T■	326T■	364T■	365T■	404T■	405T■	444T■	445T■	445TZ■
			300	400	400	400†	500†	500*	600†	600*	♦	♦
			300	400	400	500†	500†	600†	600†	600*	♦	♦
			300	400	400	500	500†	600†	600*	♦	♦	♦
			400	400	500	500	600	600†	♦	♦	♦	♦
			300	400	400	400†	500†	500†	600*	600*	700*	800*
			300	400	400	500	500†	600†	600*	700*	800*	800*
			400	400	400	500	500†	600†	700*	700†	800*	900*
			400	400	500	500	600	600†	700	800†	900†	900†
			400	500	600	600	600	700	800	900	900†	1000†
			400	500	600	600	600	800	800	900	1000	1000†
38.44	45	TRIPLE	700	800	800	900	1000	1100	1100	1200	....	....
			800	800	900	900	1000	1100	1100	1200	....	....
			800	900	900	1000	1000	1200	1200	....	....	....
			800	900	1000	1000	1100	1200	....	....	....	....
			900	1000	1100	1100	1200	....	....	....	....	....
			900	1000	1100	1200	....	....	....	....	....	....
			1000	1100	1200	1200	....	....	....	....	....	....
			1000	1100	1200	1200	....	....	....	....	....	....
			1000	1200	1200	....	....	....	....	....	....	....
			1200	1200	....	....	....	....	....	....	....	....
			1200	1200	....	....	....	....	....	....	....	....
			1200	1200	....	....	....	....	....	....	....	....

- ▲ Established AGMA ratios,  $\pm 4\%$ . For actual ratios see Table 9, page G4-20.  
 ■ Unit selection based on NEMA T-frame 1750 rpm protected motors.  
 \* Heat Exchanger required—see page G4-33.  
 † Fan cooling required—see page G4-33.  
 ‡ 2.25—4.13:1 Ratios not available in TXM 700—1200 case sizes.  
 ● DODGE recommends supporting scoops on these selections (see pages G4-56 & 57).



## CLASS II (1.4 Service Factor) Driven by 1750 rpm Motors

Nom. inal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Basic Unit Size										
			Used with Motor Horsepower of: (With Frame Size References)										
			1	1.5	2	3	5	7.5	10	15	20	25	
			143T■	145T■	145T■	182T■	184T■	213T■	215T■	254T■	256T■	284T■	
2.25	778	DOUBLE	100	100	100	100	100	100	200	200	300	300	
2.75	636		100	100	100	100	100	100	200	300	300	400	
3.37	519		100	100	100	100	100	200	200	300	300	400	
4.13	424		100	100	100	100	100	200	200	300	400	400	
5.06	350		100	100	100	100	100	200	200	200	300	300	
6.20	280		100	100	100	100	200	200	200	300	300	400	
7.59	230		100	100	100	100	200	200	200	300	300	400	
9.30	190		100	100	100	100	200	200	300	300	400	400	
11.39	155		100	100	100	100	200	200	300	300	400	400	
13.95	125		100	100	100	200	200	300	300	400	400	500	
17.09	100		100	100	100	200	200	300	300	400	400	500	
20.93	84		100	100	100	200	300	300	300	400	500	600	
25.63	68	100	100	200	200	300	300	400	500	600	600		
31.39	56	100	100	200	200	300	300	400	500	600	600		
38.44	45	TRIPLE	100	200	200	300	400	500	500	600	700	800	
47.08	37		100	200	200	300	400	500	500	600	700	800	
57.66	30		100	200	300	300	400	500	600	600	800	800	
70.62	25		200	200	300	300	400	500	600	800	800	900	
86.50	20		200	300	300	400	500	600	600	800	900	900	
105.9	16.5		200	300	300	400	500	600	800	800	900	1000	
129.7	13.5		300	300	400	400	600	600	800	900	1000	1000	
158.9	11		400	300	400	500	600	800	800	900	1000	1200	
194.6	9		400	400	400	500	600	800	900	1100	1100	1200	
				30	40	50	60	75	100	125	150	200	250
				286T■	324T■	326T■	364T■	365T■	404T■	405T■	444T■	445T■	445TZ■
2.25	778		DOUBLE	400	400	500	500†	500†	600†	◆	◆	◆	◆
2.75	636	400		400	500	500	600†	600†	◆	◆	◆	◆	
3.37	519	400		500	500	600	600	◆	◆	◆	◆	◆	
4.13	424	400		500	500	600	600	◆	◆	◆	◆	◆	
5.06	350	400		400	500	500†	600†	600†	700†	700*	800*	900*	
6.20	280	400		400	500	500	600†	600†	700†	800†	900†	900*	
7.59	230	400		500	500	600	600	700	800†	800†	900†	1000†	
9.30	190	400		500	600	600	600	800	800	900	1000†	1000†	
11.39	155	500		500	600	600	700	800	900	900	1000†	1100†	
13.95	125	500		600	600	700	800	900	900	1000	1100	1200	
17.09	100	600		600	700	800	800	900	1000	1000	1200	1200	
20.93	84	600		600	800	800	900	900	1000	1100	1200	.....	
25.63	68	600	800	800	900	900	1000	1100	1200	.....	.....		
31.69	56	800	800	900	900	1000	1100	1200	1200	.....	.....		
38.44	45	TRIPLE	800	800	1000	1000	1100	1200	1200	.....	.....	.....	
47.08	37		800	900	1000	1000	1100	1200	.....	.....	.....	.....	
57.66	30		900	900	1000	1100	1200	.....	.....	.....	.....	.....	
70.62	25		900	1000	1100	1200	1200	.....	.....	.....	.....	.....	
86.50	20		1000	1100	1200	1200	.....	.....	.....	.....	.....	.....	
105.9	16.5		1000	1200	1200	.....	.....	.....	.....	.....	.....	.....	
129.7	13.5		1200	1200	.....	.....	.....	.....	.....	.....	.....	.....	
158.9	11		1200	.....	.....	.....	.....	.....	.....	.....	.....	.....	

▲ Established AGMA ratios. ±4%. For actual ratios see Table 9, page G4-20.

■ Unit selection based on NEMA T-frame 1750 rpm protected motors.

\* Heat Exchanger required—see page G4-33.

† Fan cooling required—see page G4-33.

◆ 2.25—4.13:1 Ratios not available in TXM 700—1200 case sizes.

● DODGE recommends supporting scoops on these selections (see pages G4-56 & 57).

## CLASS III (2.0) Service Factor Driven by 1750 rpm Motors

Nominal Ratios ▲	Approx. Low Speed Shaft rpm	Unit Reduction	Basic Unit Size									
			Used with Motor Horsepower of: (With Frame Size References)									
			1	1.5	2	3	5	7.5	10	15	20	25
			143T■	145T■	145T■	182T■	184T■	213T■	215T■	254T■	256T■	284T■
2.25	788	DOUBLE	100	100	100	100	100	200	200	300	400	400
2.75	636		100	100	100	100	100	200	200	300	400	400
3.37	519		100	100	100	100	200	200	300	400	400	400
4.13	424		100	100	100	100	200	200	300	400	400	500
5.06	350		100	100	100	100	200	200	200	300	400	400
6.20	280		100	100	100	100	200	200	300	400	400	400
7.59	230		100	100	100	200	200	200	300	400	400	400
9.30	190		100	100	100	200	200	300	300	400	500	500
11.39	155		100	100	100	200	200	300	300	400	500	600
13.95	125		100	100	200	200	300	300	400	500	600	600
17.09	100		100	100	200	200	300	300	400	500	600	600
20.93	84		100	200	200	200	300	400	400	500	600	600
25.63	68		100	200	200	300	300	400	400	600	600	600
31.39	56		100	200	200	300	300	400	500	600	600	800
38.44	45	TRIPLE	200	200	300	400	500	600	600	700	800	800
47.08	37		200	200	300	400	500	600	600	800	800	900
57.66	30		200	300	300	400	500	600	600	800	900	900
70.62	25		200	300	300	400	500	600	800	800	900	1000
86.50	20		300	300	300	400	600	600	800	900	1000	1000
105.9	16.5		300	300	400	500	600	800	800	900	1000	1100
129.7	13.5		300	400	400	500	600	800	900	1000	1100	1200
158.9	11		300	400	500	600	800	800	900	1000	1200	1200
194.6	9		400	400	500	600	800	900	1000	1200	1200	....
		DOUBLE	30	40	50	60	75	100	125	150	200	250
			286T■	324T■	326T■	364T■	365T■	404T■	405T■	444T■	445T■	445T■
2.25	778		400	500	500	600	600†	♦	♦	♦	♦	♦
2.75	636		500	500	600	600	600†	♦	♦	♦	♦	♦
3.37	519		500	500	600	600	♦	♦	♦	♦	♦	♦
4.13	424		500	600	600	♦	♦	♦	♦	♦	♦	♦
5.06	350		400	500	500	600	600†	700†	800†	800*	900*	1000*
6.20	280		500	500	600	600	700	800†	800†	900†	1000†	1000*
7.59	230		500	500	600	600	700	800	900	900†	1000†	1100†
9.30	190		500	600	600	700	800	900	900	1000	1100	1200†
11.39	155		600	600	700	800	800	900	1000	1000	1200	1200
13.95	125		600	600	800	800	900	1000	1000	1100	1200	....
17.09	100		600	800	800	900	900	1000	1100	1200	....	....
20.93	84		600	800	900	900	1000	1100	1200	1200	....	....
25.63	68	TRIPLE	800	800	900	1000	1000	1200	1200	....	....	....
31.39	56		800	900	1000	1100	1200	1200	....	....	....	....
38.44	45		900	1000	1100	1100	1200	....	....	....	....	....
47.08	37		900	1100	1100	1200	1200	....	....	....	....	....
57.66	30		1000	1100	1200	1200	....	....	....	....	....	....
70.62	25		1000	1200	1200	....	....	....	....	....	....	....
86.50	20		1100	1200	....	....	....	....	....	....	....	....
105.9	16.5		1200	....	....	....	....	....	....	....	....	....

▲ Established AGMA ratios. ±4%. For actual ratios see Table 9, page G4-20.

■ Unit selection based on NEMA T-frame 1750 rpm protected motors.

\* Heat Exchanger required—see page G4-33.

† Fan cooling required—see page G4-33.

♦ 2.25—4.13:1 Ratios not available in TXM 700—1200 case sizes.

● DODGE recommends supporting scoops on these selections (see pages G4-56 & 57).



# Selection

## DODGE TXM Concentric Reducer/Motor PARA-FLEX® Coupling Selection

Basic Motor/Reducer		Unit Reduction ▲	Coupling Sizes Used on Various HP A-C Motors @ 1750 rpm, with Frame Size References†												
Size	Shaft Dia. to be Cpl'd.		1	1½	2	3	5	7½	10	15	20	25	30	40	50
			143T (7%)	145T (7%)	145T (7%)	182T (1½)	184T (1½)	213T (1½)	215T (1½)	254T (1½)	256T (1½)	284T (1½)	286T (1½)	324T (2½)	326T (2½)
100	1	D	PX50	PX50	PX50	PX50	PX50	PX60							
		T	PX50												
200	1½	D	PX50	PX50	PX50	PX50	PX50	PX60	PX60	PX70	PX70				
		T	PX50	PX50	PX50										
300	1½	D			PX60	PX60	PX60	PX60	PX60	PX70	PX70	PX80	PX80		
		T	PX60	PX60	PX60	PX60	PX60								
400	1½	D					PX70	PX70	PX70	PX70	PX70	PX80	PX80	PX90	PX90
		T	PX70	PX70	PX70	PX70	PX70	PX70							
500	1½	D						PX80	PX80	PX80	PX80	PX80	PX80	PX90	PX90
		T		PX70	PX70	PX70	PX70	PX70	PX70						
600	2½	D						PX90	PX90	PX90	PX90	PX90	PX90	PX90	PX90
		T													
700	2½	D													
		T													
800	2½	D													
		T													
900	2½	D													
		T													
1000	3	D													
		T													
1100	2½	D													
		T													
1200	2½	D													
		T													

Basic Motor/Reducer			Coupling Sizes Used on Various HP A-C Motors @ 1750 rpm, with Frame Size References†							
Size	Shaft Dia. to be Cpl'd.	Unit Reduction ▲	60	75	100	125	150	200	250	
			364T (2%)	365T (2%)	404T 405T (2%)	405T (2%)	444T 445T (3%)	445T (3%)	445TZ (2%)	
500	1½	D	PX90	PX90	PX120					
600	2½	D	PX90	PX90	PX120					
700	2¼	D	PX90	PX90	PX120	PX120	PX140			
800	2½	D	PX90	PX90	PX120	PX120	PX140			
900	2¾	D	PX120	PX120	PX120	PX120	PX140	PX140	PX140	
1000	3	D	PX120	PX120	PX120	PX120	PX140	PX140	PX140	
	2½	T	PX90	PX90						
1100	3¼	D	PX140	PX140	PX140	PX140	PX140	PX140	PX140	
	2¼	T	PX90	PX90	PX120	PX120	PX140			
1200	3½	D		PX140	PX140	PX140	PX140	PX140	PX140	
	2¼	T	PX90	PX90	PX120	PX120	PX140	PX140		

### Key to DODGE Coupling Identification—

Numbers with PX prefix are PARA-FLEX® couplings.

† Motor shaft sizes shown in parenthesis.

▲ D = Double, T = Triple

## DODGE TXM Concentric Reducer/Motor GRID-LIGN® Coupling Selection

Basic Motor Reducer		Unit Reduction ▲	Coupling Sizes Used on Various HP A-C Motors @ 1750 rpm, with Frame Size References †												
Size	Shaft Dia. to be Cpl'd.		1	1½	2	3	5	7½	10	15	20	25	30	40	50
			143T (7%)	145T (7%)	145T (7%)	182T (1½%)	184T (1½%)	213T (1½%)	215T (1½%)	254T (1½%)	256T (1½%)	284T (1½%)	286T (1½%)	324T (2½%)	326T (2½%)
100	1	D	2DG	2DG	2DG	2DG	2DG								
		T	2DG	2DG											
200	1½	D	2DG	2DG	2DG	2DG	2DG	3DG	3DG						
		T	2DG	2DG	2DG	2DG									
300	1¾	D			3DG	3DG	3DG	3DG	3DG	4DG	4DG	5DG	5DG		
		T	3DG	3DG	3DG	3DG	3DG								
400	1½	D					4DG	4DG	4DG	4DG	4DG	5DG	5DG	6DG	6DG
		T	4DG	4DG	4DG	4DG	4DG	4DG							
500	1¾	D					5DG	5DG	5DG	5DG	5DG	5DG	5DG	6DG	6DG
		T		4DG	4DG	4DG	4DG	4DG							
600	2½	D						6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG
		T			5DG	5DG	5DG	5DG	5DG	5DG	5DG	5DG			
700	2¼	D								7DG	7DG	7DG	7DG	7DG	7DG
		T			6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG
800	2½	D								7DG	7DG	7DG	7DG	7DG	7DG
		T				6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG
900	2¾	D												8DG	8DG
		T				6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG	6DG
1000	3	D												8DG	8DG
		T								7DG	7DG	7DG	7DG	7DG	7DG
1100	2¼	T								7DG	7DG	7DG	7DG	7DG	7DG
1200	2¼	T								7DG	7DG	7DG	7DG	7DG	7DG

Basic Motor Reducer		Unit Reduction ▲	Coupling Sizes Used on Various HP A-C Motors @ 1750 rpm, with Frame Size References †							
Size	Shaft Dia. to be Cpl'd.		60	75	100	125	150	200	250	
			364T (2¾%)	365T (2¾%)	404T (2¾%)	405T (2¾%)	444T (3¾%)	445T (3¾%)	445T (3¾%)	445TZ (2¾%)
500	1¾	D	7DG	7DG						
600	2½	D	7DG	7DG						
700	2¼	D	7DG	7DG						
800	2½	D	7DG	7DG	8DG					
900	2¾	D	8DG	8DG	8DG	8DG	9DG			
1000	3	D	8DG	8DG	8DG	8DG	9DG	9DG	9DG	9DG
		T	7DG	7DG						
1100	3¼	D	9DG	9DG	9DG	9DG	9DG	9DG	9DG	9DG
		T	7DG	7DG	8DG	8DG	9DG			
1200	3½	D		9DG	9DG	9DG	9DG	9DG	9DG	9DG
		T	8DG	8DG	8DG	8DG	9DG			

### Key to DODGE Coupling Identification

† Motor shaft sizes shown in parentheses.

▲ D = Double, T = Triple

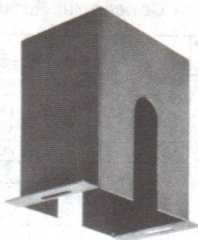
Numbers with DG suffix are GRID-LIGN couplings.



## DODGE TXM Concentric Reducer Coupling Guards

TXM Coupling Guards, made of fabricated steel, are available for use with TXM Concentric Shaft Scoop/Motor/Reducer sizes 100 thru 1200. They offer positive protection from objects falling into the rotating coupling.

When considering other combinations or couplings other than DODGE couplings—consult RELIANCE.



Coupling Guard Part Numbers

Guard Number	Part Number	Description	Coupling Size	
			PARA-FLEX	GRID-LIGN
#1	014266	DR & TR100/140T, 180T DR & TR200/140T, 180T	PX50 PX50	2DG-H 2DG-H
#1A	014601	DR100/210T	PX60	3DG-H
#2	014267	DR & TR200/210T DR & TR300/210T	PX60 PX60	3DG-H 3DG-H
#3	014268	DR & TR300/140T, 180T DR & TR400/140T, 180T TR500/140T, 180T TR600/140T, 180T	PX60 PX70 PX70 PX80	3DG-H 4DG-H 4DG-H 5DG-H
#4	014269	DR & TR300/250T DR & TR400/210T, 250T DR & TR500/210T TR600/210T, 250T DR200/250T	PX70 PX70 PX80 PX80 PX80	4DG-H 4DG-H 5DG-H, 4DG-H 5DG-H 5DG-H
#5	014337	DR600/210T, 250T DR500/250T	PX90 PX80	6DG-H 5DG-H
#6	014338	DR400/280T, 320T DR300/280T	PX80, PX90 PX80	5DG-H, 6DG-H 5DG-H
#7	014387	DR500 & 600/280T, 320T TR600/280T	PX80, PX90 PX80	5DG-H, 6DG-H 5DG-H
#7A	014150	DR500/400T	PX120	8DG-H
#8	014529	DR & TR700/210T, 280T DR800/360T	PX90 PX90	6DG-H 7DG-H
#9	014530	DR800/400T	PX120	8DG-H
#10	014388	DR & TR700/320T, 360T TR800/280T	PX90 PX80	7DG-H 6DG-H
#11	014847	DR800/210T, 280T	PX90	7DG-H
#12	014588	DR500/360T, DR400/360T	PX90	7DG-H
#13	014589	DR600/360T	PX90	7DG-H
#14	014881	TR700/180T TR800/180T, 210T	PX80 PX80	6DG-H 6DG-H
#14A	014904	DR600/400T DR700/400T	PX120 PX120	8DG-H 8DG-H
#15	014882	TR800/250T	PX80	6DG-H
#16	014883	TR800/280T, 320T	PX80, PX90	6DG-H
#17	014884	DR900/320T, 360T	PX120	8DG-H
#18	014885	DR900/400T	PX120	8DG-H
#19	014886	DR900/440T	PX140	9DG-H
#20	014887	TR900/210T, 250T	PX90	6DG-H
#21	014888	TR900/280T	PX90	6DG-H
#22	014889	DR1000/320T, 360T	PX120	8DG-H

Guard Number	Part Number	Description	Coupling Size	
			PARA-FLEX	GRID-LIGN
#23	014890	DR1000/400T	PX120	8DG-H
#24	014891	DR1000/440T	PX140	9DG-H
#25	014892	TR1000/210T, 250T	PX90	6DG-H
#26	014893	TR1000/280T, 320T	PX90	6DG-H
#27	014894	DR1100/360T	PX140	9DG-H
#28	014895	DR1100/400T	PX140	9DG-H
#29	014896	DR1100/440T	PX140	9DG-H
#30	014897	TR1100/250T, 280T	PX90	7DG-H
#31	014898	TR1100/320T, 360T	PX90	7DG-H
#32	014899	DR1200/360T	PX140	9DG-H
#33	014900	DR1200/400T	PX140	9DG-H
#34	014901	DR1200/440T	PX140	9DG-H
#35	014902	TR1200/250T, 280T	PX90	7DG-H
#36	014903	TR1200/320T, 360T	PX90	7DG-H
#38	014906	TR900/180T	PX90	6DG-H
#39	014907	TR900/320T	PX90	6DG-H
#40	014908	DR1000/250T	PX120	6DG-H
#41	014909	DR1000/280T	PX120	6DG-H
#42	014910	TR1000/180T	PX90	6DG-H
#43	014911	TR1000/360T	PX90	7DG-H
#44	014912	DR1100/250T	PX140	9DG-H
#45	014913	DR1100/280T	PX140	9DG-H
#46	014914	DR1100/320T	PX140	9DG-H
#47	014915	TR1100/400T	PX120	8DG-H
#48	014916	TR1100/440T	PX120	9DG-H
#49	014917	DR1200/250T	PX140	9DG-H
#50	014918	DR1200/280T	PX140	9DG-H
#51	014919	DR1200/320T	PX140	9DG-H
#52	014920	TR1200/400T	PX120	8DG-H
#53	014921	TR1200/440T	PX140	9DG-H
#54	014936	DR800/440T	PX140	9DG-H

## Motor Mtg. Hardware Kit

AC Motor Fr. Size	Ordering Number †	Description
140T	014524	5/16" Bolts Kit
180T, 210T	014525	3/8" Bolts Kit
250T, 280T	014526	1/2" Bolts Kit
320T, 360T	014527	5/8" Bolts Kit
400T, 440T	014528	3/4" Bolts Kit

† Bolt Kits include Bolts and Shim for mounting motor to scoop

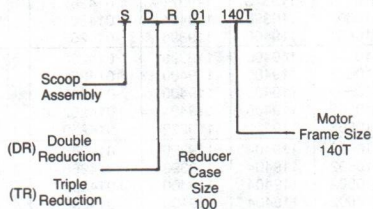
## DODGE TXM Concentric Reducer/Motor PARA-FLEX® and GRID-LIGN® Coupling Selection

### Ordering Instructions

Once the TXM scoop mount/reducer has been selected from information published in this catalog, ordering is relatively simple. First select the part number for the reducer size and ratio found on this page. Then select the type coupling required PARA-FLEX® or GRID-LIGN®. If PARA-FLEX coupling is preferred, select the S-series part number which correlates to the reducer size and motor frame size from page G4-46 and G4-47.

PARA-FLEX scoop assembly example:

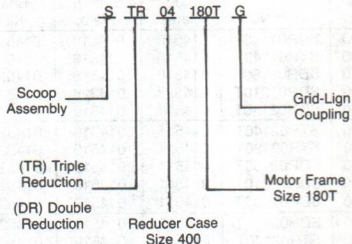
S-series Part Number



If GRID-LIGN coupling is preferred, select the S-series part which correlates to the reducer size and motor frame size from page G4-48 and G4-49.

GRID-LIGN scoop assembly example:

S-Series Part Number



Note: Scoops for AC motors only.

To order complete scoop mount/reducer assembly which contains scoop, coupling and reducer specify reducer part number plus s-series part number. Also state ship assembled, if required, otherwise the components ship unassembled.

## DODGE TXM (Free Standing) Concentric Shaft Reducers

Ratios	Case Size/Part Numbers											
	100	200	300	400	500	600	700	800	900	1000	1100	1200
2.2	014010	014033	014056	014079	014102	014125	—	—	—	—	—	—
2.8	014011	014034	014057	014080	014103	014126	—	—	—	—	—	—
3.37	014012	014035	014058	014081	014104	014127	—	—	—	—	—	—
4.1	014013	014036	014059	014082	014105	014128	—	—	—	—	—	—
5.1	014014	014037	014060	014083	014106	014129	014152♣	014175♣	014194♣	014213♣	014458♣	014477♣
6.2	014015	014038	014061	014084	014107	014130	014153♣	014176♣	014195♣	014214♣	014459♣	014478♣
7.6	014016	014039	014062	014085	014108	014131	014154♣	014177♣	014196♣	014215♣	014460♣	014479♣
9.3	014017	014040	014063	014086	014109	014132	014155	014178	014197♣	014216♣	014461♣	014480♣
11.4	014018	014041	014064	014087	014110	014133	014156	014179	014198	014217	014462♣	014481♣
14.0	014019	014042	014065	014088	014111	014134	014157	014180	014199	014218	014463♣	014482♣
17.1	014020	014043	014066	014089	014112	014135	014158	014181	014200	014219	014464♣	014483♣
20.9	014021	014044	014067	014090	014113	014136	014159	014182	014201	014220	014465♣	014484♣
25.6	014022	014045	014068	014091	014114	014137	014160	014183	014202	014221	014466♣	014485♣
31.4	014023	014046	014069	014092	014115	014138	014161	014184	014203	014222	014467♣	014486♣
38.4	014024♣	014047	014070	014093	014116	014139	014162	014185	014204♣	014223	014468♣	014487♣
47.1	014025♣	014048	014071	014094	014117	014140	014163	014186	014205♣	014224	014469♣	014488♣
57.7	014026♣	014049	014072	014095	014118	014141	014164	014187	014206♣	014225♣	014470♣	014489♣
70.6	014027♣	014050	014073	014096	014119	014142	014165♣	014188	014207♣	014226♣	014471♣	014490♣
86.5	014028♣	014051♣	014074♣	014097	014120	014143	014166♣	014189	014208♣	014227♣	014472♣	014491♣
105.9	014029♣	014052♣	014075♣	014098♣	014121	014144	014167♣	014190♣	014209♣	014228♣	014473♣	014492♣
129.7	014030♣	014053♣	014076♣	014099♣	014122	014145	014168♣	014191♣	014210♣	014229♣	014474♣	014493♣
158.9	014031♣	014054♣	014077♣	014100♣	014123	014146	014169♣	014192♣	014211♣	014230♣	014475♣	014494♣
194.6	014032♣	014055♣	014078♣	014101♣	014124♣	014147♣	014170♣	014193♣	014212♣	014231♣	014476♣	014495♣

♣ Made-to-order



# DODGE TXM Concentric Reducer Scoop Mount Part Numbers with PARA-FLEX® Couplings\*

The part number column on this page is the ordering number for a scoop and a coupling when ordering a DODGE TXM Scoop Motor/Reducer from Stock. The columns across the page detail the various parts supplied under the part number.

See ordering information on page G4-45.

\* Use only with appropriate reducer number for complete assembly.

Basic Unit Size	Part No.	Side Plates	Bottom Plate	Motor Mounting Bolt Kit	Cplg. Element	Qty. (2) Cplg. Flange	Red. Bushing	Motor Bushing	Coupling Guard Assy.	Scoop Pkg Weight Lbs.
100	SDR01140T	014510	014518	014524	011105	010601	119373	119371	014266	54
100	STR01140T	014510	014518	014524	011105	010601	119373	119371	014266	54
100	SDR01180T	014510	014518	014525	011105	010601	119373	119371	014266	55
100	SDR01210T	014327	014328	014525	011106	010602	119398	119404	014601	71
200	SDR02140T	014511	014519	014524	011105	010601	119400	119396	014266	81
200	STR02140T	014511	014519	014524	011105	010601	119400	119396	014266	81
200	STR02180T	014511	014519	014525	011105	010601	119400	119400	014266	81
200	SDR02180T	014511	014519	014525	011105	010601	119400	119400	014266	82
200	SDR02210T	014511	014519	014525	011106	010602	119400	119404	014267	90
200	SDR02250T	014511	014519	014526	011107	010603	119221	119229	014269	100
300	SDR03140T	014512	014519	014524	011106	010602	119404	119396	014268	96
300	STR03140T	014512	014519	014524	011106	010602	119404	119396	014268	95
300	SDR03180T	014512	014519	014525	011106	010602	119404	119400	014268	96
300	STR03180T	014512	014519	014525	011106	010602	119404	119400	014268	96
300	SDR03210T	014512	014519	014525	011106	010602	119404	119400	014267	99
300	SDR03250T	014512	014519	014526	011107	010603	119225	119229	014269	106
300	SDR03280T	014512	014520	014526	011108	010604	119255	119263	014338	128
400	STR04140T	014513	014519	014524	011107	010603	119229	119217	014268	114
400	SDR04140T	014513	014519	014524	011107	010603	119229	119217	014268	114
400	SDR04180T	014513	014519	014525	011107	010603	119229	119221	014268	115
400	STR04180T	014513	014519	014525	011107	010603	119229	119221	014268	115
400	SDR04210T	014513	014519	014525	011107	010603	119229	119225	014269	121
400	STR04210T	014513	014519	014525	011107	010603	119229	119225	014269	121
400	SDR04250T	014513	014519	014526	011107	010603	119229	119229	014269	122
400	SDR04280T	014513	014520	014526	011108	010604	119259	119263	014338	143
400	SDR04320T	014513	014520	014527	011109	010605	119118	119126	014338	158
400	SDR04360T	014513	014520	014527	011109	010605	119118	119130	014588	167
500	SDR05210T	014514	014521	014525	011108	010604	119263	119255	014269	152
500	SDR05250T	014514	014521	014526	011108	010604	119263	119259	014337	157
500	SDR05280T	014514	014522	014526	011108	010604	119263	119263	014387	185
500	SDR05320T	014514	014522	014527	011109	010605	119122	119126	014387	199
500	SDR05360T	014514	014523	014527	011109	010605	119122	119130	014588	272
500	SDR05400T	014514	014523	014528	011112	010608	117116	117132	014150	331
500	STR05140T	014514	014521	014524	011107	010603	119229	119217	014268	140
500	STR05180T	014514	014521	014525	011107	010603	119229	119221	014268	141
500	STR05210T	014514	014521	014525	011107	010603	119229	119225	014269	147
600	SDR06210T	014515	014521	014525	011109	010605	119126	119114	014337	178
600	SDR06250T	014515	014521	014526	011109	010605	119126	119118	014337	179
600	SDR06280T	014515	014522	014526	011109	010605	119126	119122	014387	207
600	SDR06320T	014515	014522	014527	011109	010605	119126	119126	014387	209
600	SDR06360T	014515	014523	014527	011109	010605	119126	119130	014589	286
600	SDR06400T	014515	014523	014528	011112	010608	117120	117132	014904	343
600	SDR06440T	014329	014938	014528	011114	011134	117218	117233	014904	433
600	STR06140T	014515	014521	014524	011108	010604	119261	119247	014268	156
600	STR06180T	014515	014521	014525	011108	010604	119261	119251	014268	157
600	STR06210T	014515	014521	014525	011108	010604	119261	119225	014269	163
600	STR06250T	014515	014521	014526	011108	010604	119261	119259	014269	163
600	STR06280T	014515	014522	014526	011108	010604	119261	119263	014387	195
700	SDR07250T	014516	014521	014526	011109	010605	119128	119118	014529	185
700	STR07280T	014516	014522	014526	011109	010605	119128	119122	014529	207
700	SDR07320T	014516	014522	014527	011109	010605	119128	119126	014388	217
700	SDR07360T	014516	014523	014527	011109	010605	119128	119130	014388	285
700	SDR07400T	014516	014523	014528	011112	010608	117122	117132	014904	346
700	SDR07440T	014939	014938	014528	011114	011134	117220	117233	014904	473
700	STR07180T	014516	014521	014525	011108	010604	119263	119251	014881	166



# DODGE TXM Concentric Reducer Scoop Mount Part Numbers with PARA-FLEX® Couplings\*

Basic Unit Size	Part No.	Side Plates	Bottom Plate	Motor Mounting Bolt Kit	Cplg. Element	Qty. (2) Cplg. Flange	Red. Bushing	Motor Bushing	Coupling Guard Assy.	Scoop Pkg. Weight Lbs.
700	STR07210T	014516	014521	014525	011108	010604	119265	119255	014529	172
700	STR07250T	014516	014521	014526	011108	010604	119265	119259	014529	172
700	STR07280T	014516	014522	014526	011108	010604	119265	119263	014529	195
700	STR07210T	014517	014521	014525	011109	010605	119132	119114	014847	228
800	SDR08250T	014517	014521	014526	011109	010605	119132	119118	014529	221
800	SDR08280T	014517	014522	014526	011109	010605	119132	119122	014847	250
800	SDR08320T	014517	014521	014527	011109	010605	119132	119126	014529	252
800	SDR08360T	014517	014523	014527	011109	010605	119132	119130	014529	312
800	SDR08400T	014517	014523	014528	011112	010608	117126	117132	014530	378
800	SDR08440T	014937	014938	014528	011114	011134	117223	117233	014936	495
800	STR08180T	014517	014521	014525	011108	010604	119265	119251	014881	202
800	STR08210T	014517	014521	014525	011108	010604	119265	119255	014881	202
800	STR08250T	014517	014521	014526	011108	010604	119265	119259	014882	210
800	STR08280T	014517	014522	014526	011108	010604	119265	119263	014883	236
800	STR08320T	014517	014522	014527	011109	010605	119124	119126	014883	248
900	SDR09250T	014591	014597	014526	011112	010608	117130	117112	014887	340
900	SDR09280T	014591	014598	014526	011112	010608	117130	117116	014888	357
900	SDR09320T	014591	014598	014527	011112	010608	117130	117120	014884	376
900	SDR09360T	014591	014600	014527	011112	010608	117130	117124	014884	432
900	SDR09400T	014591	014600	014528	011112	010608	117130	117132	014885	446
900	SDR09440T	014591	014600	014528	011114	011134	117226	117233	014886	536
900	STR09180T	014591	014597	014525	011109	010605	119126	119110	014906	280
900	STR09210T	014591	014597	014525	011109	010605	119126	119114	014887	285
900	STR09250T	014591	014597	014526	011109	010605	119126	119118	014887	286
900	STR09280T	014591	014598	014526	011109	010605	119126	119122	014888	302
900	STR09320T	014591	014598	014527	011109	010605	119126	119126	014907	308
1000	SDR10250T	014592	014597	014526	011112	010608	117134	117112	014908	337
1000	SDR10280T	014592	014597	014526	011112	010608	117134	117116	014909	341
1000	SDR10320T	014592	014598	014527	011112	010608	117134	117120	014889	365
1000	SDR10360T	014592	014600	014527	011112	010608	117134	117124	014889	423
1000	SDR10400T	014592	014600	014528	011112	010608	117134	117132	014890	434
1000	SDR10440T	014592	014600	014528	011114	011134	117229	117233	014891	556
1000	STR10180T	014592	014597	014525	011109	010605	119126	119110	014910	305
1000	STR10210T	014592	014597	014525	011109	010605	119126	119114	014892	310
1000	STR10250T	014592	014597	014526	011109	010605	119126	119118	014892	311
1000	STR10280T	014592	014598	014526	011109	010605	119126	119122	014893	330
1000	STR10320T	014592	014598	014527	011109	010605	119126	119126	014893	332
1000	STR10360T	014592	014598	014527	011109	010605	119126	119130	014911	338
1100	SDR11250T	014594	014597	014526	011114	011134	117232	117212	014912	456
1100	SDR11280T	014594	014598	014526	011114	011134	117232	117215	014913	473
1100	SDR11320T	014594	014598	014527	011114	011134	117232	117218	014914	480
1100	SDR11360T	014594	014600	014527	011114	011134	117232	117221	014894	542
1100	SDR11400T	014594	014600	014528	011114	011134	117232	117227	014895	554
1100	SDR11440T	014594	014600	014528	011114	011134	117232	117233	014896	563
1100	STR11250T	014594	014597	014526	011109	010605	119128	119118	014897	319
1100	STR11280T	014594	014598	014526	011109	010605	119128	119122	014897	331
1100	STR11320T	014594	014598	014527	011109	010605	119128	119126	014898	342
1100	STR11360T	014594	014600	014527	011109	010605	119128	119130	014898	400
1100	STR11400T	014594	014600	014528	011112	010608	117122	117132	014915	459
1100	STR11440T	014594	014600	014528	011114	011134	117220	117233	014916	553
1200	SDR12250T	014595	014598	014526	011114	011134	117235	117212	014917	491
1200	SDR12280T	014595	014598	014526	011114	011134	117235	117215	014918	495
1200	SDR12320T	014595	014598	014527	011114	011134	117235	117218	014919	503
1200	SDR12360T	014595	014600	014527	011114	011134	117235	117221	014899	566
1200	SDR12400T	014595	014600	014528	011114	011134	117235	117227	014900	577
1200	SDR12440T	014595	014600	014528	011114	011134	117235	117233	014901	587
1200	STR12250T	014595	014597	014526	011109	010605	119128	119118	014902	341
1200	STR12280T	014595	014598	014526	011109	010605	119128	119122	014902	353
1200	STR12320T	014595	014598	014527	011109	010605	119128	119126	014903	364
1200	STR12360T	014595	014600	014527	011109	010605	119128	119130	014903	421
1200	STR12400T	014595	014600	014528	011112	010608	117122	117132	014920	481
1200	STR12440T	014595	014600	014528	011114	011134	117220	117233	014921	575

➤ Made-to-Order.

★ Use only with appropriate reducer number for complete assembly.



# DODGE TXM Concentric Reducer Scoop Mount Part Numbers with GRID-LIGN® Couplings\*

The part number column on this page is the ordering number for a scoop and a coupling when ordering a DODGE TXM Scoop Motor/Reducer from Stock. The columns across the page detail the various parts supplied under the part number.

See ordering information on page G4-45.

\* Use only with appropriate reducer number for complete assembly.

Basic Unit Size	Part No.	Side Plates	Bottom Plate	Motor Mounting Bolt Kit	DG-H Grid & Cover Assembly	Motor Hub	Reducer Hub	Coupling Guard	Scoop Pkg. Weight Lbs.
100	SDR01140TG	014510	014518	014524	006750	006583	006584	014266	52
100	STR01140TG	014510	014518	014524	006750	006583	006584	014266	52
100	SDR01180TG	014510	014518	014525	006750	006793	006584	014266	52
100	SDR01210TG	014327	014328	014525	006751	006591	006588	014601	65
200	SDR02140TG	014511	014519	014524	006750	006583	006793	014266	78
200	STR02140TG	014511	014519	014524	006750	006583	006793	014266	78
200	STR02180TG	014511	014519	014524	006750	006583	006793	014266	78
200	SDR02180TG	014511	014519	014525	006750	006793	006793	014266	79
200	SDR02210TG	014511	014519	014525	006751	006591	006589	014267	84
200	SDR02250TG	014511	014519	014526	006752	006598	006594	014269	93
300	SDR03140TG	014512	014519	014524	006751	006587	006591	014268	89
300	STR03140TG	014512	014519	014524	006751	006587	006591	014268	89
300	SDR03180TG	014512	014519	014525	006751	006589	006591	014268	90
300	STR03180TG	014512	014519	014525	006751	006589	006591	014268	90
300	SDR03210TG	014512	014519	014525	006751	006591	006591	014267	90
300	SDR03250TG	014512	014519	014526	006752	006598	006596	014269	99
300	SDR03280TG	014512	014520	014526	006753	006605	006601	014338	120
400	STR04140TG	014513	014519	014524	006752	006592	006598	014268	107
400	SDR04140TG	014513	014519	014524	006752	006592	006598	014268	107
400	SDR04180TG	014513	014519	014525	006752	006594	006598	014268	108
400	STR04180TG	014513	014519	014525	006752	006594	006598	014268	108
400	SDR04210TG	014513	014519	014525	006752	006598	006598	014269	114
400	STR04210TG	014513	014519	014525	006752	006598	006598	014269	114
400	SDR04250TG	014513	014519	014526	006752	006598	006598	014269	115
400	SDR04280TG	014513	014520	014526	006753	006605	006603	014338	136
400	SDR04320TG	014513	014520	014527	006754	006611	006608	014338	141
400	SDR04360TG	014513	014520	014527	006755	006618	006612	014588	156
500	SDR05210TG	014514	014521	014525	006753	006601	006605	014269	145
500	SDR05250TG	014514	014521	014526	006753	006603	006605	014337	149
500	SDR05280TG	014514	014522	014526	006753	006605	006605	014387	178
500	SDR05320TG	014514	014522	014527	006754	006611	006610	014387	183
500	SDR05360TG	014514	014523	014527	006755	006618	006614	014588	262
500	SDR05400TG	014514	014523	014528	006756	006627	006573	014150	297
500	STR05140TG	014514	014521	014524	006752	006592	006598	014268	133
500	STR05180TG	014514	014521	014525	006752	006594	006598	014268	134
500	STR05210TG	014514	014521	014525	006752	006596	006598	014269	132
600	SDR06210TG	014515	014521	014525	006754	006606	006611	014337	275
600	SDR06250TG	014515	014521	014526	006754	006608	006611	014337	276
600	SDR06280TG	014515	014522	014526	006754	006610	006611	014387	191
600	SDR06320TG	014515	014522	014527	006754	006611	006611	014387	193
600	SDR06360TG	014515	014523	014527	006755	006618	006616	014589	276
600	SDR06400TG	014515	014523	014528	006756	006627	006621	014904	309
600	SDR06440TG	014329	014938	014528	006757	006802	006656	014904	334
600	STR06140TG	014515	014521	014524	006753	006576	006604	014268	148
600	STR06180TG	014515	014521	014525	006753	006599	006604	014268	149
600	STR06210TG	014515	014521	014525	006753	006601	006604	014269	155
600	STR06250TG	014515	014521	014526	006753	006603	006604	014269	156
600	STR06280TG	014515	014522	014526	006753	006605	006604	014387	188
700	SDR07250TG	014516	014521	014526	006755	006612	006617	014529	175
700	SDR07280TG	014516	014522	014526	006755	006614	006617	014529	197
700	SDR07320TG	014516	014522	014527	006755	006616	006617	014388	205
700	SDR07360TG	014516	014523	014527	006755	006618	006617	014388	275
700	SDR07400TG	014516	014523	014528	006756	006627	006622	014904	313
700	SDR07440TG	014939	014938	014528	006757	006802	006657	014904	370
700	STR07180TG	014516	014521	014525	006754	006578	006794	014881	162



# ODGE TXM Concentric Reducer Scoop Mount Part Numbers with GRID-LIGN® Couplings\*

Basic Unit Size	Part No.	Side Plates	Bottom Plate	Motor Mounting Bolt Kit	DG-H Grid & Cover Assembly	Motor Hub	Reducer Hub	Coupling Guard	Scoop Pkg. Weight Lbs.
700	STR07210TG	014516	014521	014525	006754	006606	006794	014529	168
700	STR07250TG	014516	014521	014526	006754	006608	006794	014529	169
700	STR07280TG	014516	014522	014526	006754	006610	006794	014529	191
800	SDR08210TG	014517	014521	014525	006755	006640	006619	014847	218
800	SDR08250TG	014517	014521	014526	006755	006612	006619	014529	219
800	SDR08280TG	014517	014522	014526	006755	006614	006619	014847	241
800	STR08320TG	014517	014522	014527	006755	006616	006619	014529	235
800	SDR08360TG	014517	014523	014527	006755	006618	006619	014529	303
800	SDR08400TG	014517	014523	014528	006756	006627	006624	014530	347
800	SDR08440TG	014937	014938	014528	006757	006802	006795	014936	397
800	STR08180TG	014517	014521	014525	006754	006578	006794	014881	220
800	STR08210TG	014517	014521	014525	006754	006606	006794	014881	220
800	STR08250TG	014517	014521	014526	006754	006608	006794	014882	228
800	STR08280TG	014517	014521	014526	006754	006610	006794	014883	232
800	STR08320TG	014517	014522	014527	006754	006611	006794	014888	235
900	SDR09250TG	014591	014597	014526	006756	006539	006626	014887	305
900	SDR09280TG	014591	014598	014526	006756	006573	006626	014888	322
900	SDR09320TG	014591	014598	014527	006756	006621	006626	014884	341
900	SDR09360TG	014591	014600	014527	006756	006623	006626	014884	399
900	SDR09400TG	014591	014600	014528	006756	006627	006626	014885	413
900	SDR09440TG	014591	014600	014528	006757	006802	006797	014886	442
900	STR09180TG	014591	014597	014525	006754	006578	006611	014906	275
900	STR09210TG	014591	014597	014525	006754	006606	006611	014887	280
900	STR09250TG	014591	014597	014526	006754	006608	006611	014887	281
900	STR09280TG	014591	014598	014526	006754	006610	006611	014888	298
900	STR09320TG	014591	014598	014527	006756	006621	006621	014907	328
1000	SDR10250TG	014592	014597	014526	006756	006539	006628	014908	331
1000	SDR10280TG	014592	014598	014526	006756	006573	006628	014909	347
1000	SDR10320TG	014592	014598	014527	006756	006621	006628	014889	360
1000	SDR10360TG	014592	014600	014527	006756	006623	006628	014889	414
1000	SDR10400TG	014592	014600	014528	006756	006627	006628	014890	425
1000	SDR10440TG	014592	014600	014528	006757	006802	006799	014891	459
1000	STR10180TG	014592	014597	014525	006754	006578	006611	014910	289
1000	STR10210TG	014592	014597	014525	006754	006578	006611	014892	294
1000	STR10250TG	014592	014597	014526	006755	006612	006616	014892	301
1000	STR10280TG	014592	014598	014526	006755	006614	006616	014893	320
1000	STR10320TG	014592	014598	014527	006755	006616	006616	014893	322
1000	STR10360TG	014592	014598	014527	006756	006623	006621	014911	346
1000	SDR10250TG	014594	014597	014526	006757	006540	006801	014912	356
1000	SDR10280TG	014594	014598	014526	006757	006541	006801	014913	373
1000	SDR10320TG	014594	014598	014527	006757	006656	006801	014914	380
1100	SDR11360TG	014594	014600	014527	006757	006804	006801	014894	443
1100	SDR11400TG	014594	014600	014528	006757	006798	006801	014895	455
1100	SDR11440TG	014594	014600	014528	006757	006802	006801	014896	464
1100	STR11250TG	014594	014597	014526	006755	006612	006617	014897	309
1100	STR11280TG	014594	014598	014526	006755	006614	006617	014897	321
1100	STR11320TG	014594	014598	014527	006755	006616	006617	014898	332
1100	STR11360TG	014594	014600	014527	006755	006618	006617	014898	390
1100	STR11400TG	014594	014600	014528	006756	006627	006622	014915	407
1100	STR11440TG	014594	014600	014528	006757	006802	006657	014916	454
1200	SDR12250TG	014595	014597	014526	006757	006540	006803	014917	380
1200	SDR12280TG	014595	014598	014526	006757	006541	006803	014918	396
1200	SDR12320TG	014595	014598	014527	006757	006656	006803	014919	404
1200	SDR12360TG	014595	014600	014527	006757	006804	006803	014899	468
1200	SDR12400TG	014595	014600	014528	006757	006798	006803	014900	479
1200	SDR12440TG	014595	014600	014528	006757	006802	006803	014901	489
1200	STR12250TG	014595	014597	014526	006755	006612	006617	014902	331
1200	STR12280TG	014595	014598	014526	006755	006614	006617	014902	343
1200	STR12320TG	014595	014598	014527	006755	006616	006617	014903	354
1200	STR12360TG	014595	014600	014527	006756	006623	006622	014903	430
1200	STR12400TG	014595	014600	014528	006756	006627	006622	014920	447
1200	STR12440TG	014595	014600	014528	006757	006802	006657	014921	476

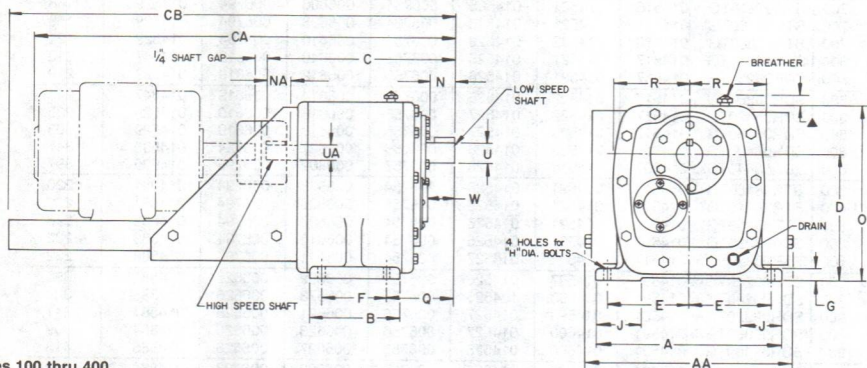
♣ Made-to-Order.

\* Use only with appropriate reducer number for complete assembly.



# Dimensions

## Sizes 100 thru 400 DODGE TXM Scoop Mount Motor/Reducers With A-C Motors



Sizes 100 thru 400  
DODGE TXM Scoop Mount Motor/Reducers

Basic Unit Size	A	B	C		D	E	F	G	H-Bolts	J	N *	NA ♥	
			Dbl. Reduction Units	Triple Reduction Units								Dbl. Reduction Units w/o Fan	Triple Reduction Units
100	11 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub>	13 <sup>57</sup> / <sub>64</sub>	13 <sup>57</sup> / <sub>64</sub>	6.30	5.20	4.00	1 <sup>11</sup> / <sub>16</sub>	1/2	27/8	3	2	2
200	12 <sup>3</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	7.00	5.60	5.34	1 <sup>13</sup> / <sub>16</sub>	5/8	3 <sup>9</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>
300	15 <sup>1</sup> / <sub>4</sub>	8	18 <sup>7</sup> / <sub>16</sub>	18 <sup>7</sup> / <sub>16</sub>	8.50	6.60	6.10	1 <sup>15</sup> / <sub>16</sub>	3/4	4 <sup>1</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>
400	16 <sup>7</sup> / <sub>8</sub>	9	21 <sup>9</sup> / <sub>16</sub>	21 <sup>9</sup> / <sub>16</sub>	9.60	7.30	7.10	1 <sup>1</sup> / <sub>8</sub>	7/8	4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>

Basic Unit Size	O	Q	R	U		UA				W	Avg. Unit Wt. Only (lbs.)
				Shaft Dia.	Key Size	Dbl. Reduction Units		Triple Reduction Units			
						Shaft Dia.	Key Size	Shaft Dia.	Key Size		
100	10 <sup>9</sup> / <sub>64</sub>	5 <sup>31</sup> / <sub>64</sub>	4 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3/8 x 3/8 x 2 <sup>1</sup> / <sub>4</sub>	1	1/4 x 1/4 x 1 <sup>1</sup> / <sub>16</sub>	1	1/4 x 1/4 x 1 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	94
200	11	6 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	3/8 x 3/8 x 2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	1/4 x 1/4 x 2	1 <sup>1</sup> / <sub>8</sub>	1/4 x 1/4 x 2	3 <sup>3</sup> / <sub>16</sub>	133
300	13 <sup>13</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>16</sub>	2	1/2 x 1/2 x 3	1 <sup>3</sup> / <sub>8</sub>	5/16 x 5/16 x 2 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>8</sub>	5/16 x 5/16 x 2 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	193
400	14 <sup>15</sup> / <sub>32</sub>	8 <sup>7</sup> / <sub>64</sub>	6 <sup>11</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	5/8 x 5/8 x 3 <sup>15</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	3/8 x 3/8 x 2 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	3/8 x 3/8 x 2 <sup>1</sup> / <sub>2</sub>	4 <sup>9</sup> / <sub>32</sub>	282

Basic Unit Size	Dimensional Ref.	1750 rpm A-C Motor Frame Sizes												
		143T	145T	182T	184T	213T	215T	254T	256T	284T	286T	324T	326T	364T
100	AA♣ CAI CB	13 <sup>11</sup> / <sub>32</sub> 24 <sup>13</sup> / <sub>16</sub> 30 <sup>7</sup> / <sub>8</sub>	13 <sup>11</sup> / <sub>32</sub> 25 <sup>13</sup> / <sub>16</sub> 30 <sup>7</sup> / <sub>8</sub>	13 <sup>11</sup> / <sub>32</sub> 26 <sup>13</sup> / <sub>16</sub> 30 <sup>7</sup> / <sub>8</sub>	13 <sup>11</sup> / <sub>32</sub> 27 <sup>13</sup> / <sub>16</sub> 30 <sup>7</sup> / <sub>8</sub>	13 <sup>11</sup> / <sub>32</sub> 29 <sup>13</sup> / <sub>16</sub> 30 <sup>7</sup> / <sub>8</sub>	.....	.....	.....	.....	.....	.....	.....	.....
	AA♣ CAI CB	16 <sup>1</sup> / <sub>2</sub> 27 <sup>9</sup> / <sub>16</sub> 39	16 <sup>1</sup> / <sub>2</sub> 28 <sup>9</sup> / <sub>16</sub> 39	16 <sup>1</sup> / <sub>2</sub> 29 <sup>9</sup> / <sub>16</sub> 39	16 <sup>1</sup> / <sub>2</sub> 30 <sup>9</sup> / <sub>16</sub> 39	16 <sup>1</sup> / <sub>2</sub> 32 <sup>9</sup> / <sub>16</sub> 39	16 <sup>1</sup> / <sub>2</sub> 33 <sup>13</sup> / <sub>16</sub> 39	16 <sup>1</sup> / <sub>2</sub> 37 39	16 <sup>1</sup> / <sub>2</sub> 38 <sup>15</sup> / <sub>16</sub> 39	.....	.....	.....	.....	
300	AA♣ CAI CB	16 <sup>1</sup> / <sub>2</sub> 29 <sup>3</sup> / <sub>8</sub> 41 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub> 30 <sup>3</sup> / <sub>8</sub> 41 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub> 31 <sup>3</sup> / <sub>8</sub> 41 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub> 32 <sup>3</sup> / <sub>8</sub> 41 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub> 34 <sup>3</sup> / <sub>8</sub> 41 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub> 36 41 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub> 39 <sup>3</sup> / <sub>8</sub> 41 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub> 40 <sup>15</sup> / <sub>16</sub> 41 <sup>1</sup> / <sub>2</sub>	19 <sup>7</sup> / <sub>8</sub> 42 <sup>1</sup> / <sub>8</sub> 46 <sup>1</sup> / <sub>8</sub>	19 <sup>7</sup> / <sub>8</sub> 43 <sup>3</sup> / <sub>16</sub> 46 <sup>1</sup> / <sub>8</sub>	.....	.....	.....
	AA♣ CAI CB	16 <sup>1</sup> / <sub>2</sub> 32 <sup>1</sup> / <sub>2</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 33 <sup>1</sup> / <sub>2</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 34 <sup>3</sup> / <sub>8</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 35 <sup>3</sup> / <sub>8</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 37 <sup>1</sup> / <sub>2</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 39 <sup>3</sup> / <sub>8</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 42 <sup>1</sup> / <sub>2</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 44 <sup>1</sup> / <sub>8</sub> 44 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub> 45 <sup>3</sup> / <sub>8</sub> 49 <sup>3</sup> / <sub>16</sub>	20 46 <sup>11</sup> / <sub>16</sub> 49 <sup>3</sup> / <sub>16</sub>	20 47 <sup>1</sup> / <sub>8</sub> 49 <sup>3</sup> / <sub>16</sub>	20 49 <sup>3</sup> / <sub>8</sub> 49 <sup>3</sup> / <sub>16</sub>	20 55 <sup>1</sup> / <sub>4</sub> 49 <sup>3</sup> / <sub>16</sub>

\* Low speed shaft usable length with s't'd. seal.

♥ High speed shaft usable length with s't'd. seal.

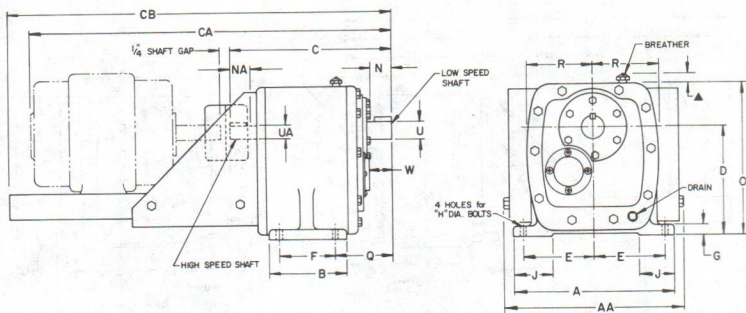
♣ 1<sup>1</sup>/<sub>2</sub>" will clear breather on all size units.

AA = Scoop width plus head thickness of mounting bolts.

† Approx. overall length using squirrel cage, induction RELIANCE Medium Duty A-C motor of the protected type and DODGE couplings from page G4-42.

**NOTE:** Scoops are designed for standard size conduit boxes. Over size conduit boxes may interfere with side plates.

# **Sizes 500 thru 800** **DODGE TXM Scoop Mount Motor/Reducers** **With A-C Motors**



**Sizes 500 thru 800**  
**DODGE TXM Scoop Mount Motor/Reducers**

Basic Unit Size	C										NA ♦			
	A	B	Dbl. Reduction Units	Triple Reduction Units	D	E	F	G	H-bolts	J	N *	Dbl. Reduction Units w/o Fan	Triple Reduction Units	
500	18 <sup>5</sup> / <sub>16</sub>	12	24 <sup>1</sup> / <sub>16</sub>	24 <sup>1</sup> / <sub>16</sub>	9.96	8.20	10.00	1 <sup>1</sup> / <sub>4</sub>	1	4 <sup>3</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	
600	21 <sup>1</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>16</sub>	28 <sup>1</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	11.66	9.30	11.30	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub>	
700	23	15 <sup>9</sup> / <sub>16</sub>	31 <sup>1</sup> / <sub>16</sub>	30 <sup>9</sup> / <sub>16</sub>	12.78	10.20	13.20	2	2	5	7	4 <sup>9</sup> / <sub>16</sub>	4	
800	25 <sup>1</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>2</sub>	35 <sup>1</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>8</sub>	14.80	11.20	14.70	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>8</sub>	8	5 <sup>7</sup> / <sub>16</sub>	4	

Basic Unit Size	O	Q	R	U		Dbl. Reduction Units		Triple Reduction Units		W	Avg. Unit Wt. Only (lbs.)
				Shaft Dia.	Key Size	Shaft Dia.	Key Size	Shaft Dia.	Key Size		
500	15 <sup>1</sup> / <sub>16</sub>	8	7 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	5/8 x 5/8 x 4 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	1/2 x 1/2 x 3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	3/8 x 3/8 x 3	44 <sup>7</sup> / <sub>16</sub>	405
600	18 <sup>3</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	3/4 x 3/4 x 5 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	1/2 x 1/2 x 3 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	3/8 x 3/8 x 2 <sup>1</sup> / <sub>2</sub>	54 <sup>1</sup> / <sub>16</sub>	590
700	19 <sup>3</sup> / <sub>16</sub>	10	9 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1 x 1 x 6 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>4</sub>	1/2 x 1/2 x 4	2	1/2 x 1/2 x 3 <sup>1</sup> / <sub>2</sub>	63 <sup>1</sup> / <sub>16</sub>	680
800	22 <sup>3</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub>	4	1 x 1 x 7	2 <sup>1</sup> / <sub>2</sub>	5/8 x 5/8 x 4 <sup>1</sup> / <sub>2</sub>	2	1/2 x 1/2 x 3 <sup>1</sup> / <sub>2</sub>	72 <sup>3</sup> / <sub>16</sub>	1200

1750 rpm A-C Motor Frame Sizes													
Basic Unit Size	Dimensional Ref.	145T†	182T†	184T†	213T*	213T†	215T*	215T†	214T*	254T†	256T*	256T†	284T*
500	AA	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	215 <sup>1</sup> / <sub>4</sub>	215 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	254 <sup>1</sup> / <sub>4</sub>	256 <sup>1</sup> / <sub>4</sub>	256 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>
	CA†	36 <sup>1</sup> / <sub>4</sub>	37 <sup>1</sup> / <sub>8</sub>	38 <sup>1</sup> / <sub>8</sub>	40 <sup>7</sup> / <sub>8</sub>	40 <sup>1</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>8</sub>	41 <sup>7</sup> / <sub>8</sub>	45 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	48 <sup>1</sup> / <sub>16</sub>
	CB	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	48 <sup>1</sup> / <sub>16</sub>
600	AA	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	215 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>	248 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>
	CA†	39 <sup>7</sup> / <sub>32</sub>	40 <sup>1</sup> / <sub>32</sub>	41 <sup>1</sup> / <sub>32</sub>	43 <sup>7</sup> / <sub>32</sub>	43 <sup>7</sup> / <sub>32</sub>	45 <sup>25</sup> / <sub>32</sub>	44 <sup>27</sup> / <sub>32</sub>	49 <sup>1</sup> / <sub>32</sub>	51 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	51 <sup>1</sup> / <sub>32</sub>
	CB	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	51 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>32</sub>	51 <sup>1</sup> / <sub>32</sub>
700	AA	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	215 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>
	CA†	43 <sup>1</sup> / <sub>16</sub>	44 <sup>1</sup> / <sub>16</sub>	45 <sup>1</sup> / <sub>16</sub>	46 <sup>1</sup> / <sub>16</sub>	48 <sup>1</sup> / <sub>16</sub>	48 <sup>1</sup> / <sub>16</sub>	48 <sup>1</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>
	CB	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	54 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	53 <sup>1</sup> / <sub>2</sub>	55 <sup>1</sup> / <sub>16</sub>
800	AA	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	215 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>	214 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>	213 <sup>1</sup> / <sub>4</sub>
	CA†	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	49 <sup>1</sup> / <sub>16</sub>	49 <sup>1</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>16</sub>	57 <sup>1</sup> / <sub>16</sub>	56 <sup>1</sup> / <sub>16</sub>	56 <sup>1</sup> / <sub>16</sub>	58 <sup>25</sup> / <sub>16</sub>
	CB	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	57 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	56 <sup>1</sup> / <sub>32</sub>	62 <sup>25</sup> / <sub>32</sub>

Basic Unit Size	Dimensional Ref.	1750 rpm A-C Motor Frame Sizes											
		284T	286T★	286T	324T★	324T	326T★	364T★	365T★	404T★	405T★	444T★	445T★
500	AA†	.....	21 <sup>1</sup> / <sub>4</sub>	.....	21 <sup>1</sup> / <sub>4</sub>	.....	21 <sup>1</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	.....	.....	.....
	CA†	.....	50 <sup>1</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>	.....	52 <sup>1</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>16</sub>	63 <sup>1</sup> / <sub>16</sub>	.....	.....	.....
	CB	.....	52 <sup>9</sup> / <sub>16</sub>	52 <sup>9</sup> / <sub>16</sub>	52 <sup>9</sup> / <sub>16</sub>	.....	52 <sup>9</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>	55 <sup>1</sup> / <sub>16</sub>	.....	.....	.....
600	AA†	.....	21 <sup>1</sup> / <sub>4</sub>	.....	21 <sup>1</sup> / <sub>4</sub>	.....	21 <sup>1</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	.....	26 <sup>7</sup> / <sub>8</sub>	.....
	CA†	.....	53 <sup>1</sup> / <sub>32</sub>	.....	54 <sup>1</sup> / <sub>32</sub>	.....	56 <sup>1</sup> / <sub>32</sub>	57 <sup>1</sup> / <sub>32</sub>	58 <sup>1</sup> / <sub>32</sub>	60 <sup>1</sup> / <sub>32</sub>	62 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	.....
	CB	.....	55 <sup>1</sup> / <sub>32</sub>	.....	55 <sup>1</sup> / <sub>32</sub>	.....	55 <sup>1</sup> / <sub>32</sub>	58 <sup>1</sup> / <sub>32</sub>	57 <sup>1</sup> / <sub>32</sub>	57 <sup>1</sup> / <sub>32</sub>	57 <sup>1</sup> / <sub>32</sub>	63 <sup>1</sup> / <sub>32</sub>	.....
700	AA†	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	.....	21 <sup>1</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	26 <sup>7</sup> / <sub>8</sub>	26 <sup>7</sup> / <sub>8</sub>
	CA†	54 <sup>1</sup> / <sub>16</sub>	56 <sup>1</sup> / <sub>16</sub>	55 <sup>7</sup> / <sub>16</sub>	57 <sup>1</sup> / <sub>16</sub>	.....	59 <sup>1</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	61 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>16</sub>
	CB	58 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	.....	59 <sup>1</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	63 <sup>1</sup> / <sub>16</sub>	63 <sup>1</sup> / <sub>16</sub>
800	AA†	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	.....	21 <sup>1</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	26 <sup>7</sup> / <sub>8</sub>	26 <sup>7</sup> / <sub>8</sub>
	CA†	57 <sup>1</sup> / <sub>32</sub>	60 <sup>1</sup> / <sub>32</sub>	58 <sup>2</sup> / <sub>32</sub>	61 <sup>1</sup> / <sub>32</sub>	.....	62 <sup>2</sup> / <sub>32</sub>	63 <sup>1</sup> / <sub>32</sub>	63 <sup>1</sup> / <sub>32</sub>	67 <sup>1</sup> / <sub>32</sub>	67 <sup>1</sup> / <sub>32</sub>	72 <sup>2</sup> / <sub>32</sub>	72 <sup>2</sup> / <sub>32</sub>
	CB	61 <sup>1</sup> / <sub>32</sub>	62 <sup>3</sup> / <sub>32</sub>	61 <sup>1</sup> / <sub>32</sub>	62 <sup>3</sup> / <sub>32</sub>	.....	62 <sup>3</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>32</sub>	63 <sup>1</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>

\* Low speed shaft usable length with st'd. seal.  
 ♦ High speed shaft usable length with st'd. seal.  
 † 1<sup>1</sup>/<sub>2</sub>" will clear breather on all size units.  
 ‡ AA = Scoop width plus head thickness of mounting bolts.  
 † Approx. overall length using squirrel cage, induction RELIANCE

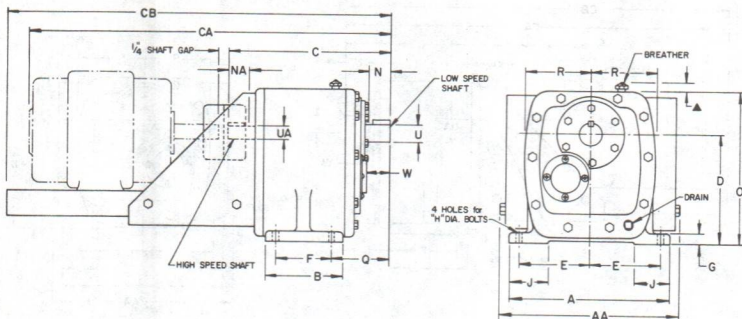
Medium Duty A-C motor of the protected type and DODGE couplings from page G4-42.

\* Double Reduction reducer only.  
 † Triple Reduction reducer only.  
 ‡ When using external backstops, consult RELIANCE for scoop dimensions.

NOTE: Scoops are designed for standard size conduit boxes. Over size conduit boxes may interfere with side plates.



## Sizes 900 thru 1200 DODGE TXM Scoop Mount Motor/Reducers With A-C Motors



### Sizes 900 thru 1200

#### DODGE TXM Scoop Mount Motor/Reducers

Basic Unit Size	A	B	C		D	E	F	G	H	J	N *	NA ♥ ●	
			Dbl. Reduction Units	Triple Reduction Units								Dbl. Reduction Units w/o Fan	Triple Reduction Units
900	27 <sup>31</sup> / <sub>64</sub>	19 <sup>5</sup> / <sub>32</sub>	38 <sup>1</sup> / <sub>2</sub>	37 <sup>9</sup> / <sub>64</sub>	17.40	12.20	14.96	1 1/2	1 1/2	9	9	5 <sup>39</sup> / <sub>64</sub>	4 1/4
1000	29 <sup>1</sup> / <sub>32</sub>	21 <sup>3</sup> / <sub>64</sub>	42 <sup>1</sup> / <sub>64</sub>	40 <sup>7</sup> / <sub>64</sub>	19.50	13.10	17.28	1 1/2	1 1/2	9	9 1/2	6 <sup>1</sup> / <sub>64</sub>	4 1/4
1100	32 <sup>3</sup> / <sub>32</sub>	23 <sup>3</sup> / <sub>64</sub>	45 <sup>1</sup> / <sub>64</sub>	43 <sup>1</sup> / <sub>32</sub>	21.90	14.44	18.80	1 1/2	1 1/4	9	10	6 <sup>1</sup> / <sub>64</sub>	4 1/2
1200	34	25 <sup>1</sup> / <sub>64</sub>	48 <sup>3</sup> / <sub>64</sub>	46 <sup>3</sup> / <sub>64</sub>	24.70	15.20	19.30	1 1/2	1 1/4	9	10 1/4	6 <sup>3</sup> / <sub>64</sub>	4 1/2

Basic Unit Size	O	Q	R	U		Dbl. Reduction Units		Triple Reduction Units		W	Avg. Unit Wt. Only (lbs.)
				Shaft Dia.	Key Size	Shaft Dia.	Key Size	Shaft Dia.	Key Size		
900	25 <sup>29</sup> / <sub>32</sub>	13 <sup>3</sup> / <sub>64</sub>	11	4 1/2	1 x 1 x 8 1/2	2 1/4	3/4 x 5/8 x 5	2 1/8	1/2 x 1/2 x 3/4	9 1/2	1660
1000	29 <sup>1</sup> / <sub>32</sub>	13 <sup>3</sup> / <sub>64</sub>	13 3/4	4 1/2	1 1/4 x 1 1/4 x 8 1/2	3	3/4 x 5/8 x 5 1/2	2 1/8	1/2 x 1/2 x 3/4	10	1950
1100	33 <sup>3</sup> / <sub>32</sub>	14 <sup>3</sup> / <sub>64</sub>	13	5 1/2	1 1/4 x 1 1/4 x 9	3 1/2	3/4 x 5/8 x 5 1/2	2 1/4	1/2 x 1/2 x 4	10 1/2	2760
1200	37 <sup>1</sup> / <sub>32</sub>	16 <sup>3</sup> / <sub>32</sub>	14 1/2	5 1/2	1 1/4 x 1 1/4 x 9 1/2	3 1/2	3/4 x 7/8 x 6	2 1/4	1/2 x 1/2 x 4	11 1/2	3476

Basic Unit Size	Dimensional Ref.	1750 rpm A-C Motor Frame Sizes															
		184T	213T	215T	254T	256T	284T	286T	286T	324T	324T	324T	326T	326T	326T	364T	364T
900	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	50 <sup>15</sup> / <sub>16</sub>	53 <sup>1</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>16</sub>	57 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	60 <sup>1</sup> / <sub>16</sub>	63 <sup>1</sup> / <sub>16</sub>	63 <sup>1</sup> / <sub>16</sub>	62 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	66 <sup>1</sup> / <sub>16</sub>	66 <sup>1</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>16</sub>
	CB	59 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	59 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	66 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	66 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	64 <sup>1</sup> / <sub>16</sub>	66 <sup>1</sup> / <sub>16</sub>	66 <sup>1</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>16</sub>
1000	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	57 <sup>1</sup> / <sub>32</sub>	60 <sup>1</sup> / <sub>32</sub>	60 <sup>1</sup> / <sub>32</sub>	62 <sup>1</sup> / <sub>32</sub>	62 <sup>1</sup> / <sub>32</sub>	63 <sup>1</sup> / <sub>32</sub>	63 <sup>1</sup> / <sub>32</sub>	65 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	66 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	70 <sup>1</sup> / <sub>32</sub>	70 <sup>1</sup> / <sub>32</sub>
	CB	62 <sup>1</sup> / <sub>32</sub>	62 <sup>1</sup> / <sub>32</sub>	62 <sup>1</sup> / <sub>32</sub>	62 <sup>1</sup> / <sub>32</sub>	62 <sup>1</sup> / <sub>32</sub>	67 <sup>1</sup> / <sub>32</sub>	67 <sup>1</sup> / <sub>32</sub>	67 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	70 <sup>1</sup> / <sub>32</sub>	70 <sup>1</sup> / <sub>32</sub>
1100	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	64 <sup>1</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>32</sub>	64 <sup>1</sup> / <sub>32</sub>	67 <sup>1</sup> / <sub>32</sub>	67 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	69 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>
	CB	66 <sup>1</sup> / <sub>32</sub>	66 <sup>1</sup> / <sub>32</sub>	66 <sup>1</sup> / <sub>32</sub>	66 <sup>1</sup> / <sub>32</sub>	66 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	74 <sup>1</sup> / <sub>32</sub>	74 <sup>1</sup> / <sub>32</sub>
1200	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	67 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>
	CB	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>	73 <sup>1</sup> / <sub>32</sub>

Basic Unit Size	Dimensional Ref.	1750 rpm A-C Motor Frame Sizes									
		364T	365T	365T	404T	404T	405T	405T	444T	444T	445T
900	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	68 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	78 <sup>1</sup> / <sub>32</sub>
	CB	72 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	72 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	78 <sup>1</sup> / <sub>32</sub>
1000	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	68 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>32</sub>	74 <sup>1</sup> / <sub>32</sub>	74 <sup>1</sup> / <sub>32</sub>	75 <sup>1</sup> / <sub>32</sub>	75 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	81 <sup>1</sup> / <sub>32</sub>
	CB	74 <sup>1</sup> / <sub>32</sub>	75 <sup>1</sup> / <sub>32</sub>	75 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>	76 <sup>1</sup> / <sub>32</sub>
1100	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	72 <sup>1</sup> / <sub>32</sub>	75 <sup>1</sup> / <sub>32</sub>	75 <sup>1</sup> / <sub>32</sub>	78 <sup>1</sup> / <sub>32</sub>	78 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	83 <sup>1</sup> / <sub>32</sub>	83 <sup>1</sup> / <sub>32</sub>	85 <sup>1</sup> / <sub>32</sub>
	CB	77 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>	79 <sup>1</sup> / <sub>32</sub>
1200	AA	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>16</sub>
	CA	74 <sup>1</sup> / <sub>32</sub>	78 <sup>1</sup> / <sub>32</sub>	78 <sup>1</sup> / <sub>32</sub>	81 <sup>1</sup> / <sub>32</sub>	81 <sup>1</sup> / <sub>32</sub>	81 <sup>1</sup> / <sub>32</sub>	81 <sup>1</sup> / <sub>32</sub>	86 <sup>1</sup> / <sub>32</sub>	86 <sup>1</sup> / <sub>32</sub>	88 <sup>1</sup> / <sub>32</sub>
	CB	80 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>	82 <sup>1</sup> / <sub>32</sub>

\* Low speed shaft usable length with std. seal.

▲ High speed shaft usable length with std. seal.

▲ 1<sup>1</sup>/<sub>2</sub>" will clear breather on all side units.

▲ AA = Scoop width plus head thickness of mounting bolts.

† Approx. overall length using squirrel cage, induction RELIANCE

Medium Duty A-C motor of the protected type and DODGE couplings from page G4-42.

\* Double Reduction reducer only.

† Triple Reduction reducer only.

▲ When using external backstops, consult RELIANCE for scoop dimensions.

NOTE: Scoops are designed for standard size conduit boxes. Over size conduit boxes may interfere with side plates.

Lubrication is extremely important for satisfactory operation. The proper oil level must be maintained at all times. Frequent inspections with the unit not running (preferably when warm), should be made by removing level plug to see that the oil level is being maintained. If low, add lubricant through one of the upper openings until it comes out of the oil level hole. Replace the oil level plug securely.

After an initial operation of about two weeks, the oil should be changed. If desired, this oil may be strained and reused. Very often, small metal particles will show up in the oil due to the wearing in process. After the initial break in period, lubricant should be drained, magnetic drain plug cleaned, gearcase flushed and refilled every 2500 hours of operation under average industrial conditions; more frequently when running continuously or at high temperatures. Use only recommended lubricants listed on this page, or equivalent. Special attention should be given to checking of lubricants when any of the following conditions exist:

1. High operating temperatures resulting from heavy

intermittent loads, causing the temperature of the gearcase to rise rapidly and then cool.

2. Unusual ambient conditions, which may tend to cause condensation on the inside of the gearcase thereby contaminating the oil.
3. Operating temperatures that would cause oil to remain above 180° F continually.
4. If the reducer is subjected to unusual vapors or moist atmosphere.

## Operating Temperatures

Heating is a natural characteristic of high speed gearing, and a maximum gearcase temperature approaching 200° F is not uncommon for some units operating in normal ambient temperatures (80° F). When operated at rated capacity, no damage will result from this temperature as this was taken into consideration in the design of the gearcase and in the selection of the lubricants.

**TXM Lubrication Recommendations†**  
**ISO Grades**

RPM OUT	100	200	300	400	500	600	700	800	900	1000	1100	1200
9	100	100	100	100	100	150	150	150	150	150	150	150
25	100	100	100	100	100	150	150	150	220	220	220	220
57	100	100	100	150	150	220	220	220	220	220	220	320, 220
100	100	100	100	150	220	220	220	220	320	320	220, 150	220, 150
225	100	150	220	220	220	220	220	220	220	220	220, 150	220, 150
350	150	150	220	320	320	220	220	220	220	220	220, 150	*
780	150	150	220	320	320	220	*	*	*	*	*	*

ISO	AGMA
100	3
150	4
220	5
320	6

\* Speed limitations exceeded  
† Based on 80°F ambient environment

**NOTE:** Mobil SHC 630 Series oil is recommended for high ambient temperatures.



## CONVENTIONAL FLOOR MOUNTING

### APPROXIMATE OIL CAPACITIES\*

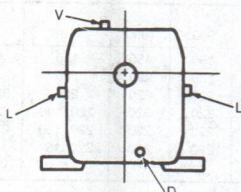
Size	Oil Capacity	Oil Level Plug Diameters	Size	Output RPM	Oil Capacity	Level Position	Oil Level Plug Diameters
100	4 qts.	3/8"	700	Above 180	21 qts.	A	1/2"
				Below 180	31 qts.	B	
200	5 1/2 qts.	3/8"	800	Above 160	7 1/2 gals.	A	1"
				Below 160	10 gals.	B	
300	10 qts.	3/8"	900	Above 140	11 gals.	A	1"
				Below 140	17 1/2 gals.	B	
400	14 qts.	3/8"	1000	Above 120	14 gals.	A	1"
				Below 120	20 gals.	B	
500	16 qts.	3/8"	1100	Above 110	21 gals.	A	1"
				Below 110	31 gals.	B	
600	25 qts.	3/8"	1200	Above 95	29 gals.	A	1"
				Below 95	43 gals.	B	

\*Always fill to the oil plug regardless of the stated quantities.

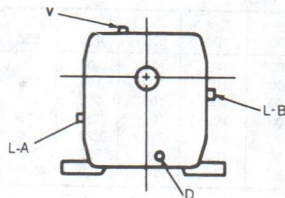
**L = Level Plug**

**D = Drain Plug**

**V = Vent Plug**



TXM 100-600  
POS. A-1

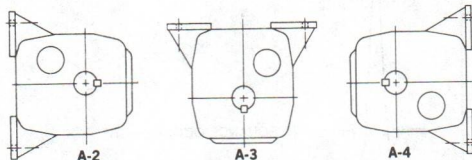


TXM 700-1200  
Pos. A-2

# Mounting Position

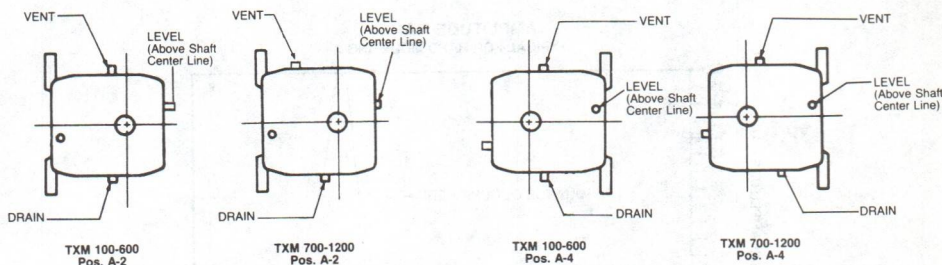
DODGE TXM Concentric Shaft Reducers can be modified to permit them to be mounted in positions other than the conventional floor mounting. Some of these include ceiling and wall mounting (see instructions) and various

inclined, vertical and tilted positions. Consult RELIANCE to determine modifications required for various inclined, vertical and tilted positions.

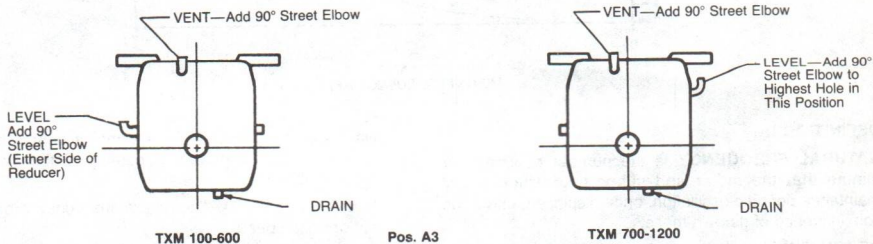


## CEILING AND WALL MOUNTING

### Oil Level for A2 and A4 Positions



### Oil Level for A3 Position

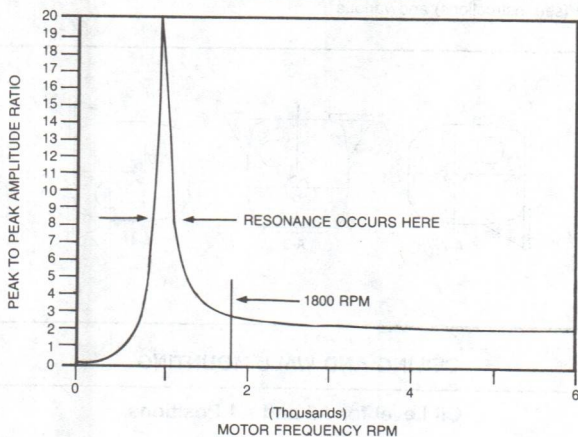


**NOTE:** Mobil SHC 630 Series oil is recommended for high ambient temperatures.

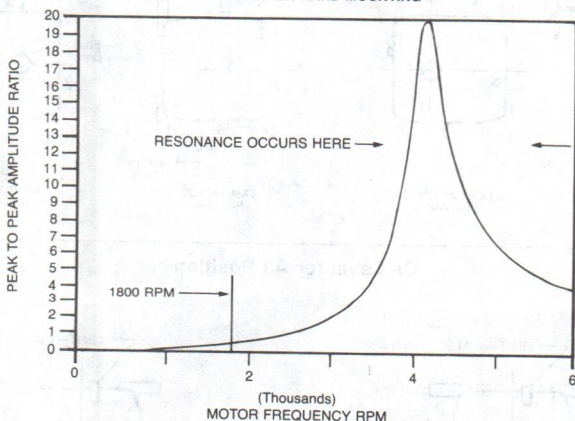


# General Guidelines for Mounting Variable Speed AC or DC Motors

AMPLITUDE RATIO  
TYPICAL FOR SOFT MOUNTING



AMPLITUDE RATIO  
TYPICAL FOR HARD MOUNTING



## DEFINITIONS:

**NATURAL FREQUENCY** is the number of times per minute that the motor and supporting structure will maintain a periodic oscillation, once displaced, under the sole influence of its own mass.

**RESONANCE** is a vibration of large amplitude caused by the small periodic stimulus of the motor unbalance force

when the motor speed is the same or nearly the same frequency as the natural frequency of the motor and support structure.

**SOFT MOUNTING**—The natural frequency is below the motor base speed.

**HARD MOUNTING**—The natural frequency is above the motor base speed.

# General Guidelines for Mounting Variable Speed AC or DC Motors

## SCOOP MOUNT ACCESSORY

- 1) This is a soft mounting of the motor.
- 2) The benefits obtained by using this accessory are low cost and isolation of the reducer support structure from the motor vibration.
- 3) This motor mount was designed for use with a constant speed motor at 1750 rpm. Use of motors with lower base speeds increases the chance of producing resonance. Stiffening techniques within the scoop structure can increase the natural frequency about 20% which is generally enough to eliminate resonance should it occur.
- 4) This accessory is NOT recommended for variable speed DC or AC applications.
- 5) Customers who prefer to use the scoop mount accessory to mount variable speed AC or DC motors must state on the face of the purchase order that they plan to support scoop and assumes full responsibility for any vibratory or transient load induced by the motor. For recommended scoop support, contact RELIANCE ELECTRIC and reference drawing #A31512.

**NOTE:** For more information on DODGE TXM Concentric Reducer Scoop Mount Motor/Reducers, refer to page G4-34.

## TOP MOUNT ACCESSORY

- 1) This may be a soft or hard mounting of the motor depending on the size of the motor and the distance that the adjusting screws are extended.
- 2) The benefits obtained by using this accessory are low cost, minimum floor space used for the motor/reducer assembly, and greater flexibility to obtain the precise output rpm of the reducer than concentric coupling.
- 3) This motor mount was designed for use with a constant speed motor at 1750 rpm.
- 4) This accessory is NOT recommended for variable speed DC and AC applications. Consult RELIANCE.

**NOTE:** For more information on DODGE TXM Concentric Reducer Motor Mounts, refer to pages G4-24 thru G4-25.

## MD BASEPLATE ACCESSORY

- 1) This is a hard mounting of the motor. The customer must provide an adequate supporting structure for the mounting bolts at the motor end.
- 2) The benefits obtained by using this accessory are:
  - a) resonance problems can be eliminated
  - b) accurate alignment of motor/coupling/reducer can be done at the factory instead of the job site
  - c) low cost
  - d) low profile mounting equal to the reducer shaft height
  - e) a standard slide base accessory can be used under the reducer and mini-base to provide chain take-up
- 3) The accessory is recommended for variable speed DC and AC applications where the motor "D" dimension does not exceed approximately 70% of the reducer "D" dimension. This method should also be considered for motors heavier than the reducer or greater than 700 lbs. For mounting dimensions see pages G4-26 & 27.

**NOTE:** For more information on DODGE TXM Concentric Reducer MD Baseplates, refer to pages G4-26 & 27.

## HD BASEPLATE ACCESSORY

- 1) This is a hard mounting of the motor.
- 2) The benefits obtained by using this accessory are:
  - a) resonance problems can be eliminated
  - b) accurate alignment of motor/coupling/reducer can be done at the factory instead of the job site.
  - c) large motors can be rigidly mounted to keep deflections from the large forces under control and provide longer service life.
- 3) This accessory is recommended for large motors, where the motor weight exceeds the reducer weight or 700 lbs., and for variable speed DC or AC applications regardless of the motor weight. For mounting dimensions see pages G4-28 & 29.

**NOTE:** For more information on Dodge TXM Concentric Reducer HD Baseplates, refer to pages G4-28 & 29.



# Computer Selection Program

## DODGE TXM CONCENTRIC REDUCER COMPUTER SELECTION CAPABILITY

A new set of programs have been implemented, and complete selection tables for TXM, accessories, and V-Belt drives have been added to our Application Computer. When the program is accessed, the application data can be entered, and the proper reducer, scoop, top mount, backstop, coupling, coupling guard, fan assembly and heat exchanger will be selected. Also displayed will be part numbers, inventory availability, and prices.

This readily available, computer-aided sales tool for distributors means saving time, reducing costs, and responding to customers with accurate product recommendations.

## DODGE TXM CONCENTRIC REDUCER PACKAGE SELECTION

- Total Drive Packages, Including Accessories
- Built-In Service Factors
- Fast & Easy Selection
- Manufacturer Recommended Reducer Selections
- One-Step Engineering Specification
- Both PARA-FLEX® and Grid Coupling with scoop selection
- Instant Stock Check on Lawrenceburg
- List & Net Price Capability

## COMPUTER SELECTED REDUCER PACKAGE SELECTION-PRICING INVENTORY STATUS

TXMS

TXM CONCENTRIC REDUCERS SELECTION

\* USE A DASH BETWEEN INTEGER AND FRACTIONS\*

MOTOR HP: 25 INPUT RPM: 1750 (1750 OR 1170) OUTPUT SPEED: 580

SERVICE FACTOR: 150 (ENTER 1.5 AS 150) QUANTITY: 1 MULT: 650

REDUCER TYPE: P S=SEPARATE T=TOP MOUNT P=SCOOP W/PARAFLEX G=SCOOP W/GRID

ACCESSORIES: BACKSTOP X AUXILIARY SEAL

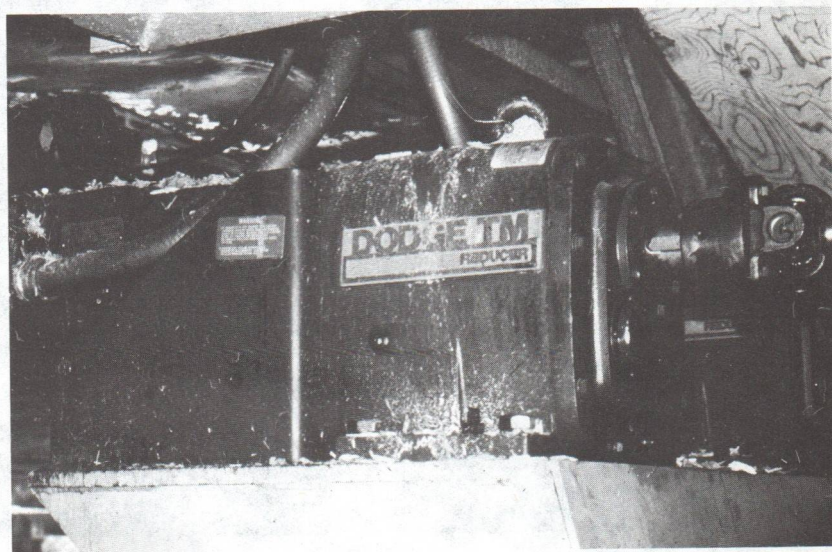
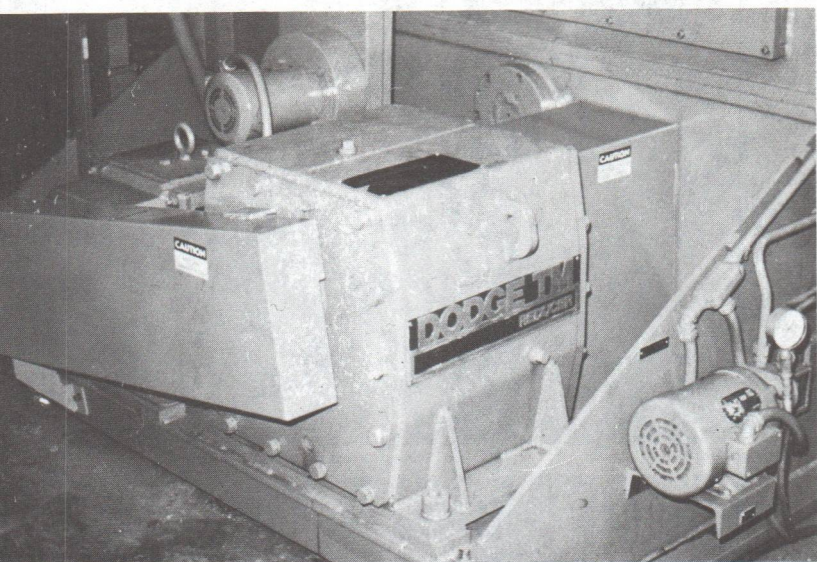
PART #	DESCRIPTION	QUANTITY	LIST	MULT	NET	AVL
014080	TXM 400, 2.8	1	0.00	.000	0.00	Y
014499	AUX. SEALS 400	1	0.00	.000	0.00	Y
1SDR04280T	SCOOP-BOLTED/DR400/280T/P	1	0.00	.000	0.00	P
** THE ABOVE SCOOP PACKAGE CONSIST OF THE FOLLOWING: **						
014513	SCOOP SP4	1	0.00	.000	0.00	Y
014520	SCOOP MP 3-4/284-320	1	0.00	.000	0.00	Y
014526	MOTOR BOLTS 250-280	1	0.00	.000	0.00	Y
011108	PX80 PARAFLEX ELEMENT	1	0.00	.000	0.00	Y
010604	PX80 PARAFLEX TL FLG ASSY	1	0.00	.000	0.00	Y
119259	2012 X 1 5/8-1K	1	0.00	.000	0.00	Y
119263	2012 X 1 7/8-1K	1	0.00	.000	0.00	Y
014338	#6 TM300-280; TM400-280/3	1	0.00	.000	0.00	Y

MOTOR FRAME SIZE 284T OUTPUT SPEED 636 ACTUAL SER FACTOR 2.332  
MECH RATING 58.300 THERMAL RATING EXCEEDS MECH RATING

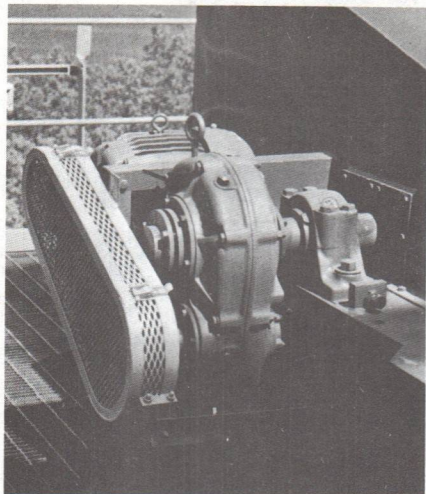
CLEAR = CANCEL

PF1 = SERVICE FACTOR HELP

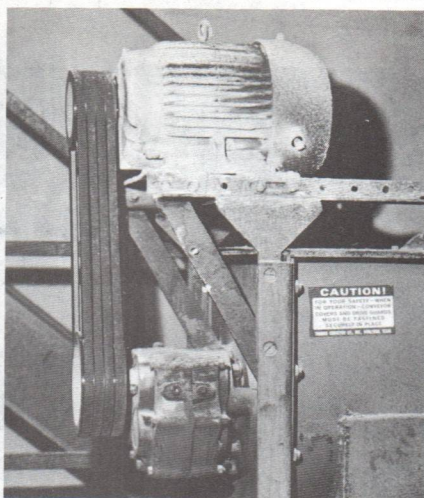
PF11 = PROD MENU







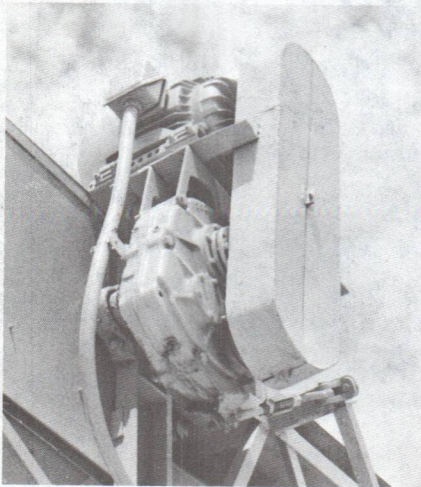
Feeder conveyor in SAND & GRAVEL plant.



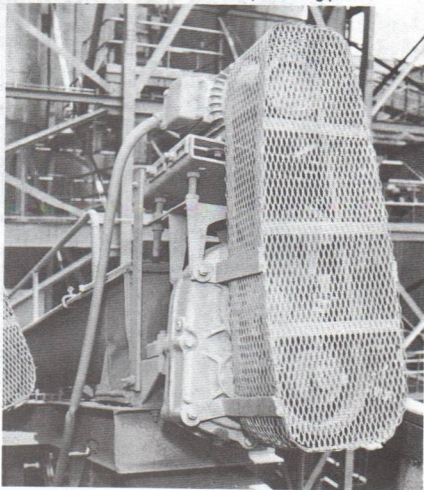
Screw conveyor in FOOD processing plant.

## DODGE TORQUE-ARM SPEED REDUCERS...

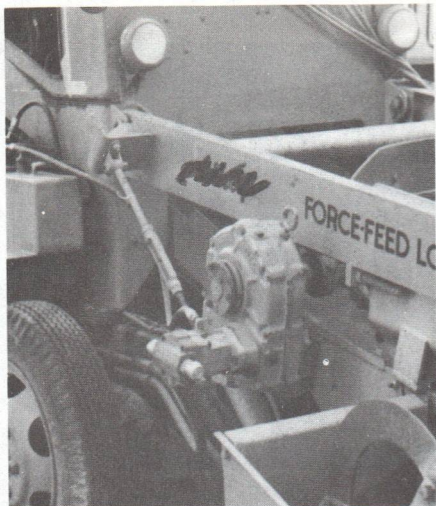
FEED & GRAIN conveyor system.



Preparation equipment in CHEMICAL processing plant.



Note: Guards have been removed for photographic purposes.



MATERIAL HANDLING equipment.

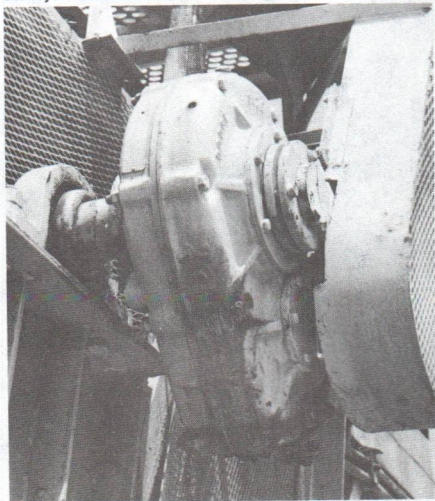


Loading conveyor on SHIPPING dock.

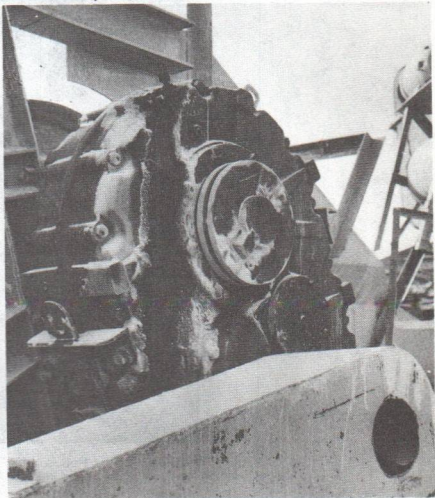
## USED EVERYWHERE THROUGHOUT INDUSTRY.

■ SHAFT MOUNTED ■ HYDROIL ■ SCREW CONVEYOR DRIVES

Conveyor head drive in MINING industry.

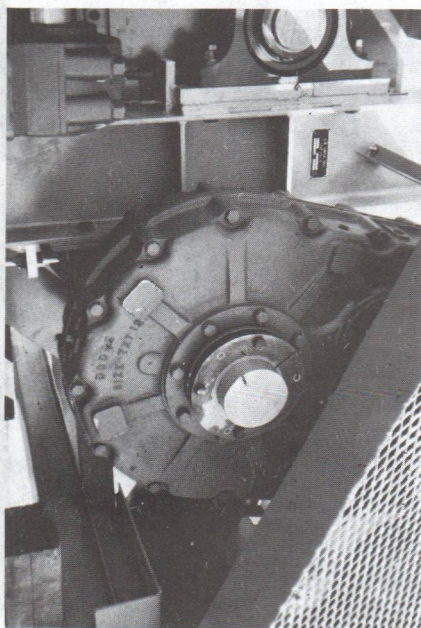
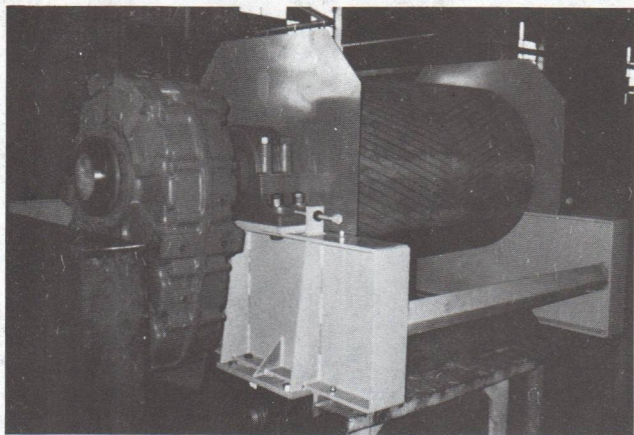


AGGREGATE plant main belt conveyor.



Note: Guards have been removed for photographic purposes.



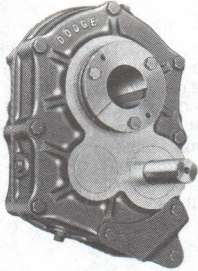
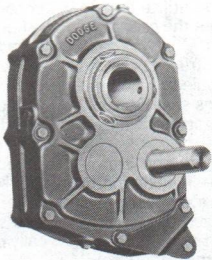
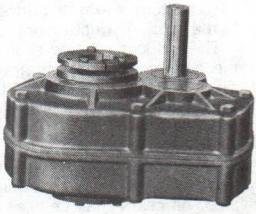
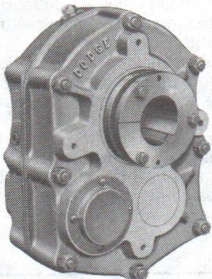
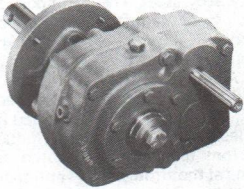
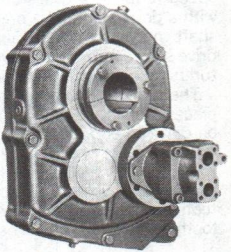


DODGE TXT 1225 Taper Bore Reducer, TAF-XT bearings, sheaves, POLY-BAND belt and pulleys with vulcanized lagging used in Bulk Material handling.

**Note:** Guards have been removed for photographic purposes.

# DODGE® SHAFT MOUNTED SPEED REDUCERS

## With Exclusive Twin Tapered Bushings

<p><b>Standard Tapered</b></p>  <p><b>G5-18</b></p>	<p><b>Straight Bore</b></p>  <p><b>G5-24</b></p>	<p><b>Vertical Shaft</b></p>  <p><b>G5-22 &amp; 27</b></p>
<p><b>Flange Mounted</b></p>  <p><b>G5-29</b></p>	<p><b>Screw Conveyor Drive</b></p>  <p><b>G6-8</b></p>	<p><b>Hydraulically Powered</b></p>  <p><b>G7-14</b></p>

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# General Specifications

## TORQUE-ARM Speed Reducers:

The speed reducer shall be either a belt driven or direct coupled enclosed shaft mount type unit with a single or double reduction ratio. The reducer shall mount directly on the driven shaft and utilize an adjustable torque arm that attaches from the gear case to the support structure or foundation.

The reducer housing shall be constructed of two piece corrosion resistant, gray or ductile iron and be ribbed for added strength. All housings shall be doweled and precision machined to assure accurate alignment for all gear sets.

All gearing shall be of helical design, and crown shaved to provide an elliptoid tooth to eliminate tooth end bearing and assure meshing at the strongest tooth area. All gears shall be case carburized to insure a high surface durability with a resilient tooth core for greater impact resistance and longer service life. Gears

shall be supported between bearings to maintain proper alignment on gear meshes, to maximize load carrying capabilities, and to eliminate overhung loads imposed on bearings.

Reducer bearings shall be of the ball or tapered roller type, and provide a 25,000 hour average life.

All seals shall be of the double lip, spring loaded type, made of nitrile rubber.

Reducer gears and bearings shall be splash lubricated using a quality petroleum base oil, containing anti-foamants and rust inhibitors.

Reducer installation shall be accomplished by using ductile iron, fully split Twin Tapered Bushings. Reducer removal shall be accomplished by providing jack screw holes in the bushing flanges to mechanically remove the tapered assembly.

## Screw Conveyor Drives:

The drive shall be either a belt driven or direct coupled enclosed, adaptor mounted unit with a single or double reduction ratio. The drive shall consist of a speed reducer, a cast iron 4 bolt mounting adaptor with a double lip and a braided felt seal, and a drive shaft machined from a high quality alloy steel. The drive shall conform to Conveyor Equipment Manufacturers Association (CEMA) standards.

The reducer housing shall be constructed of two-piece corrosion resistant, gray iron. All housings shall be doweled and precision machined to assure accurate alignment of all gear sets.

All gearing shall be of helical design and crown shaved to provide an elliptoid tooth form to eliminate tooth end bearing and assure meshing at the strongest tooth area. All gears shall be case carburized to insure

a high surface durability, with a resilient tooth core for greater impact resistance and longer service life. Gears shall be supported between bearings to maintain proper alignment on gear meshes, to maximize load carrying capabilities, and to eliminate overhung loads imposed on bearings.

Reducer output bearings shall be of the tapered roller type, to absorb thrust loads from the screw conveyor. All bearings shall provide 25,000 hours average life.

All reducer seals shall be of the double lip, spring loaded type, made of nitrile rubber.

Reducer gears and bearings shall be splash lubricated using a quality petroleum base oil containing anti-foamants and rust inhibitors.

## Hydroil Drives:

The speed reducer shall be a hydraulically powered enclosed shaft mount type unit with a single or double reduction ratio. The reducer shall mount directly on the driven shaft and utilize an adjustable torque arm that attaches from the gear case to the support structure or foundation.

The reducer shall be powered using a Hydroil single stage vane type fluid motor. The reducer shall be provided with a cast iron SAE mounting flange adaptor and splined input shaft to allow an integral fit with the splined hydraulic motor shaft.

The reducer housing shall be constructed of two piece corrosion resistant, gray iron and be ribbed for added strength. All housings shall be doweled and precision machined to assure accurate alignment for all gear sets.

All gearing shall be of helical design, and crown shaved to provide an elliptoid tooth form to eliminate tooth end bearing and assure meshing at the strongest

tooth area. All gears shall be case carburized to insure a high surface durability with a resilient tooth core for greater impact resistance and longer service life. Gears shall be supported between bearings to maintain proper alignment on gear meshes, to maximize load carrying capabilities, and to eliminate overhung loads imposed on bearings.

Reducer bearings shall be of the ball or tapered roller type and provide a 25,000 hour average life.

All seals shall be of the double lip, spring loaded type, made of nitrile rubber.

Reducer gears and bearings shall be splash lubricated using a quality petroleum base oil, containing anti-foamant and rust inhibitors.

Reducer installation shall be accomplished by using ductile iron fully split Twin Tapered bushings. Reducer removal shall be accomplished by providing jack screw holes in the bushing flanges to mechanically remove the tapered assembly.

# DODGE® TORQUE-ARM™

## America's #1 Shaft Mounted Speed Reducer

**The  
leader  
leads  
again**

You can now realize significant cost savings with the new TXT Torque-Arm Speed Reducer. And here's how:

- TXT reducers now have increased horsepower ratings which may allow you to use a smaller Torque-Arm reducer, while receiving the same torque at the output shaft.
- The reducer mounts directly on the driven shaft, eliminating the need for a coupling or chain drive, sliding motor base, and support structure. There's no alignment problem.

### **Balanced design adds up to quality and long life.**

- **Rugged, cast-iron housing.** Cast, corrosion-resistant gray or ductile iron housings are precision machined for positive gear alignment. Housing construction with ribbed structure provides strong, rigid support for bearings and gearing. Additionally, internal rib design helps channel oil to all bearings for superior lubrication.
- **Efficient helical gear tooth design** produces an efficiency rating of 98.5% per gear set. Gear teeth feature a softer core to resist shock loads, combined with a case carburized surface for maximum wear resistance. Precision crown shaving produces an elliptoid tooth shape, so that teeth mesh at the stronger center area eliminating end loading. The result: uniform load distribution

with no tooth-end wear.

- **Double-lip seals.** Metallic double-lip seals keep lubricating oil in, lock dirt and contaminants out. The cavity between the inner and outer lips is filled with grease at assembly to prelubricate the seal. A garter spring exerts a constant, gentle pressure at every point around the circumference of the shaft to insure a positive seal. All seals ride on precision ground surfaces for maximum life.
- **Dependable performance.** All Dodge Torque-Arm speed reducers are 100% factory noise and leak tested to assure long life and trouble-free service.
- **TXT reducers incorporate standard Dodge features**
  - Ratios up to 210:1.
  - Capacities fractional to 700 HP.
  - Output speeds through 400 rpm.
  - Trouble-free maintenance.
  - Up-front installation savings.
  - Quality proven design.
  - Easier, more accurate drive alignment.
- **Dodge has a Torque-Arm reducer for every application.** And all this adds up to more savings for you! The TXT reducer—the best package available to meet tough industrial requirements. It's easy to see why Dodge Torque-Arm is America's #1 Shaft Mounted Speed Reducer.



# TWIN TAPERED BUSHINGS MAKE DODGE® TORQUE-ARM™ THE LEADER

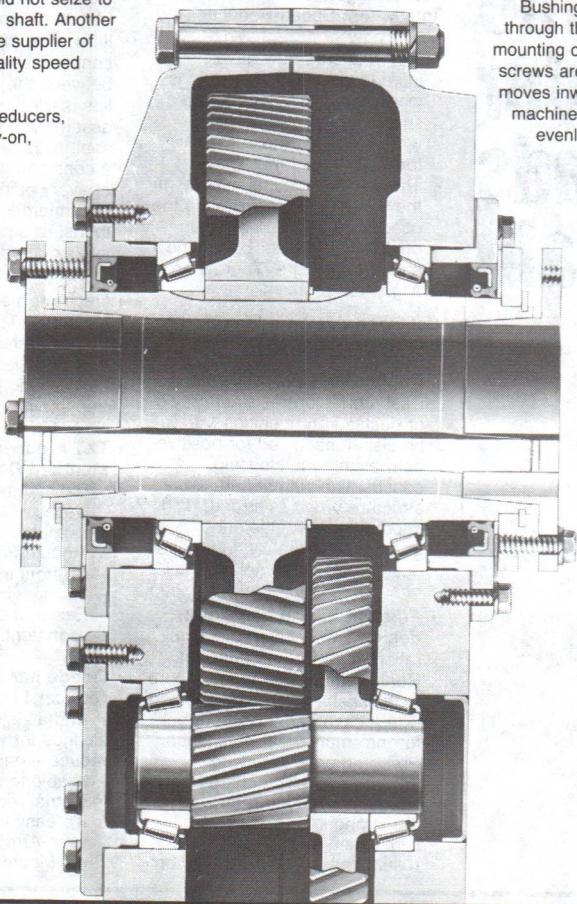
DODGE patented Twin Tapered Bushings have provided customers over fifteen years of reliable and proven service. This patented, exclusive feature revolutionized the shaft mount reducer concept and insured that Torque-Arm Speed Reducers would not seize to the customer's driven shaft. Another first from DODGE, the supplier of industry preferred quality speed reducers.

Torque-Arm Speed Reducers, provide positive, easy-on, easy-off mounting

for all reducer sizes from fractional to 700 HP.

A tapered bore in both sides of the reducer's output hub snugs up against a matching taper on the outer surface of the bushing. . . "Twin Tapered."

Bushing mounting screws pass through the bushing flange into a mounting collar on the hub. As the screws are tightened, the bushing moves inward, gripping the driven machine's input shaft tightly and evenly around every point on its circumference.



# TWIN TAPERED BUSHINGS MAKE DODGE® TORQUE-ARM™ THE LEADER

Twin tapered bushings are used *exclusively* on Dodge Torque-Arm speed reducers.

## Cost savings.

The twin tapered bushings make the Torque-Arm reducer easier to install...and it takes less time for mounting and removal. The bushings provide a positive grip on the shaft. It's the best mounting system available.

## Easy installation.

Simply insert the shaft key, slide the inboard bushing, reducer, and outboard bushing onto the input shaft of your machine. Next, position and tighten the bushing mounting screws. That's all there is to it.

## Easy removal.

No puller is required because the mounting screws are used as jackscrews. Just remove the bushing mounting screws and insert them in the tapered holes in the bushing flanges. When they are tightened, the reducer slides easily off the shaft. Eliminates fretting corrosion.

## Flexibility.

Versatility in mounting allows the Torque-Arm reducer to be positioned anywhere along the driven shaft in horizontal, vertical, or inclined mounting positions.

## True fit.

It accomplishes a more true-running fit to the shaft than other reducer bushing systems. A positive, concentric mount to even undersized shafts.

## Added features.

- Twin tapered bushings eliminate any play between the reducer and shaft. This means less wobble than other bushing systems and prevention of fretting corrosion on the shaft or the bushings.
- The shaft won't be damaged by scoring, marring, or gouging because there are no setscrews.
- The design allows greater component support because there are two bushings supporting the reducer. A key running the full length of the reducer transmits more power.
- Twin tapered bushings are ideal for conveyors, mixers, packing machines, etc., because high shock or heavy reversing loads can't cause the reducer to slip.

## Torque-Arm Motor Mount

No construction cost, no drilling, no fitting—just bolt in place. Provides for easy belt tensioning or changes in center distances. See page 65-32 thru G5-35 for details.

## Anti-Reversing Backstop

Prevents reversal of rotation. Can be quickly installed by removing the cover plate and slipping the backstop over the input shaft. It is completely sealed inside the reducer housing. See page G5-31 for details.

## TRI-MATIC® Overload Release

Excessive loads cause this device to loosen drive belts and cut off power. Protects driven machine, motor and reducer. Warning systems can be added. See page G5-38 and 5-39 for details.

## Auxiliary Seal Kits

For added protection in extremely dirty or abrasive environments. Kits consist of a specially-designed input shaft seal, outboard seal rings with standard grease fittings plus all necessary hardware. See page G5-41 for details.

## Floor Mounting Brackets

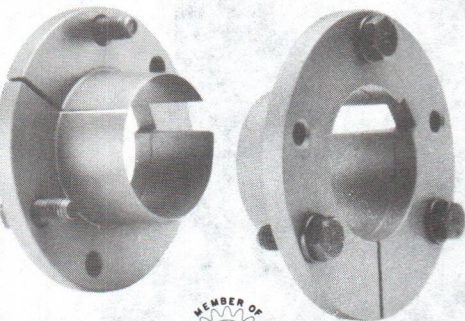
Long and short side mounting brackets permit floor mounting when necessary. See page G5-42 for details.

## Belt Guards

A belt guard with mounting straps for TXT will fit standard TA series motor mounts. The new belt guards are designed to fit most common sheave diameters. They mount easily with no machining required. See page G5-36 and 5-37 for details.

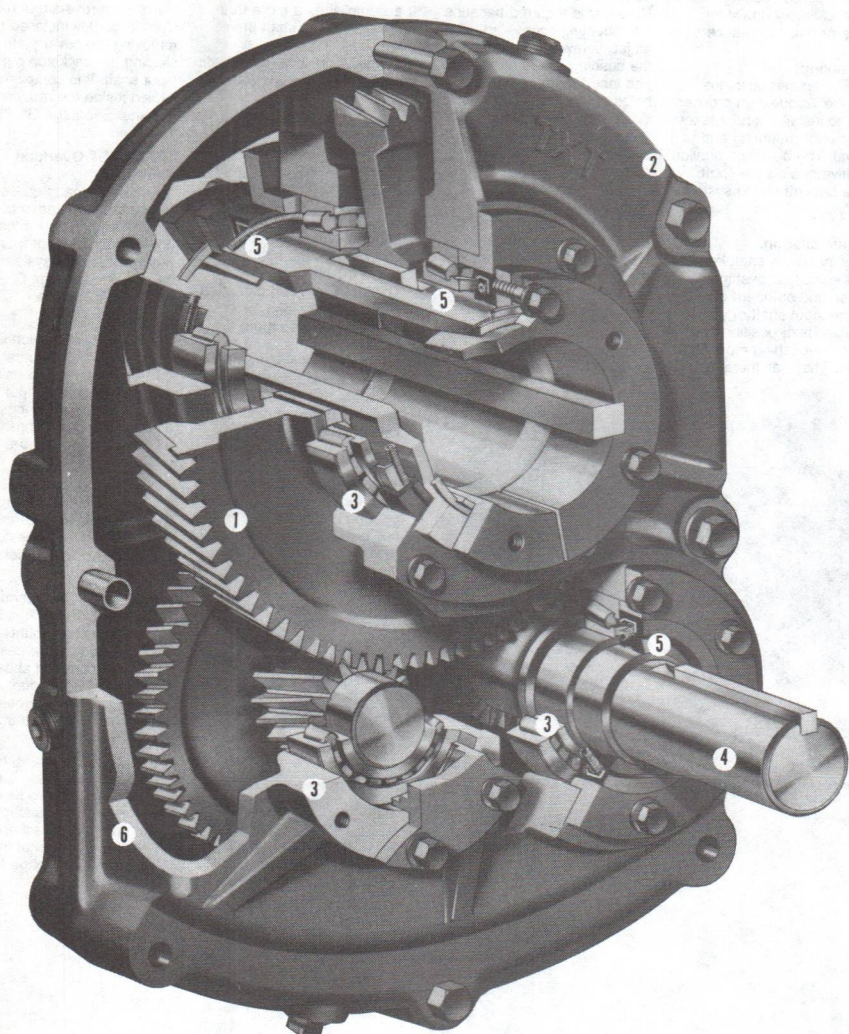
## Cooling Fan Assemblies

The fan assembly, optional for use in cooling reducers, is fastened to the reducer input shaft and is compact enough to allow installation of the V-belt drive. See page G5-40 for details.





# DODGE® TORQUE-ARM™



---

# THE COMPLETE SHAFT-MOUNTED SPEED REDUCER SYSTEM

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## **PRECISION HIGH QUALITY GEARING**

# 1.

- Computer Designed Helical Gears
- 98.5% Efficiency Per Gear Stage
- Case Carburized for Long Life
- Strong Alloy Materials for High Load Capacity
- Crown Shaved Gear Tooth Profile for Even Load Distribution
- Smooth, Quiet Operation with Several Teeth in Mesh
- Designed in Conformance with AGMA

## **MAXIMUM CAPACITY HOUSING DESIGN**

# 2.

- Rugged Cast Iron or Ductile Iron
- Rigid Bearing Support and Positive Gear Alignment
- High Corrosion Resistance
- Excellent Vibration Dampening & Shock Resistance Features
- 100% Magnaflux Inspection of Castings

## **RELIABLE ANTI-FRICTION BEARINGS**

# 3.

- Anti-friction Bearing Manufacturers Association Bearing Ratings
- Combination Ball & Tapered Roller Designs
- Straddle Mounted Gears for Optimum Support

## **STRONG SHAFTS FOR SUPPORT**

# 4.

- Precision-Machined & Hardened for High Load
- High Alloy Steel for Maximum Torsional Loads
- Generous Size Shaft Keys for Shock Loading
- Press or Heat-Shrunk Design for Reliability

## **PROVEN SEALS KEEP OIL IN AND CONTAMINANTS OUT**

# 5.

- Double Lip Spring-Loaded Construction
- Metal Reinforcement for Strength
- Broad Operating Range of -40°F to 225°F
- 100% Factory-Tested Before Shipment
- Smooth, Ground Shaft Surfaces for Maximum Life
- Seal Kits Available for All Reducer Sizes

## **EFFICIENT SPLASH LUBRICATION SYSTEM**

# 6.

- Generous Oil Sump for Lubricating All Gears & Bearings
- Standard Low Cost Petroleum Lubricants Are Suitable
- Multiple Oil Plugs for Mounting Flexibility
- Three-Part Air Breather with Reliable Oil Baffle
- Magnetic Drain Plug for Protection



## Selection and General Mounting Procedure for Torque-Arm Speed Reducers

**Instructions**—For class number of application, see the table on page G5-9, which refers to corresponding tables on pages G5-10 thru G5-15.

For extreme shock or high energy loads which must be absorbed, as when stalling, or for power source other than electric motor, consult factory.

**Note:** Ratings and selection are the same for both the taper bushed and straight bore type reducers.

**Class I**—Steady load not exceeding Motor HP Rating and light shock loads during 10 hours a day. Moderate shock loads are allowable if operation is intermittent.

**Class II**—Steady load not exceeding Motor HP Rating for over 10 hours a day. Moderate shock loads are allowable during 10 hours a day.

**Class III**—Moderate shock loads for over 10 hours a day. Heavy shock loads are allowable during 10 hours a day.

**Peak HP**—Momentarily, peak horsepower may be very high. For example, in applications with high inertia loads, oversize or high torque motors, etc. Where this momentary peak exceeds 200% of normal (100% overload) the equivalent hp may be obtained by dividing the peak hp by two. If the results exceed the horsepower obtained from a consideration of service and duty, it should be used to select the reducer size.

**Example**—3 HP, 1160 RPM motor driving a 20 RPM head shaft of a bucket elevator not uniformly fed, 16 hours per day. From the table on page G5-9 note this is a Class III Application, referring to instructions and table on page G5-14 and G5-15, note that TXT 525 and TXT 515 reducers are indicated. The maximum value of starting and momentary peak loads is not expected to exceed  $4 \times$  the Motor HP Rating of 3. Hence, either size may be used.

**Reducer Mounting Positions**—The normal mounting position is shown on drawing on page G5-44. The reducer may be mounted at  $90^\circ$  or  $180^\circ$  from normal position, with a  $\pm 20^\circ$  tolerance, by relocating breather and drain plugs to suit the

application. For other positions, an oil level gauge is recommended and can be furnished—price on application.

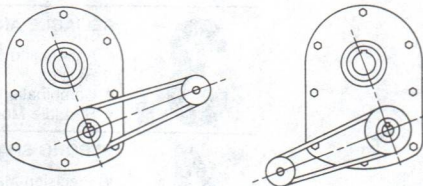
**Torque-Arm Positions**—The ideal position for the torque-arm is at right angles ( $90^\circ$ ) to a line between the point of attachment to the reducer and the output shaft with a  $\pm 30^\circ$  tolerance. When an **overload release** is used, this tolerance should be  $\pm 10^\circ$ .

**V-belt Drives**—Drives for normal service and standard motor speeds are listed in section G-8 of this book. For special drives or other motor speeds, consult factory for recommendations.

Shafts used on the reducer input shaft of a special drive should not be smaller than "G" pitch diameter given in the tables on the dimensional pages. The input shaft speed should not exceed the figures shown on page G5-9.

The V-belt drive may be located in any convenient position regardless of the location of the torque-arm. The most common locations, however, are shown in the diagrams below ( $90^\circ$  to a line between the input and output shafts.) These locations permit control of belt tension with a minimum adjustment of the torque-arm turnbuckle.

When an **overload release** is used, see the instructions at bottom of page G5-39.



## Ordering Instructions

**Size and Bore**—Specify reducer size, bore and part number. Pages G5-23 and G5-28 show available bores. **Important:** When ordering, specify if you require **Taper Bushed Reducer** or **Straight Bore Reducer**. Example: TXT415  $\times$  2 $\frac{3}{16}$  **Taper Bushed Reducer** and applicable part numbers.

**Bushings**—All taper bushed reducers require bushings. Prices include bushings. In straight bore type price includes bushings only when required. When bushings are not required deduct list price of bushing assembly from list price of reducer. When ordering bushings separately see page G5-23 and G5-28. Specify bushing, size number, bore required and part number. Example: TDT4  $\times$  2 $\frac{3}{16}$  tapered bushing assembly, 244111.

**Torque-Arm**—Furnished in price of the reducer; complete with fulcrum and turnbuckle.

**Overload Release**—Specify, if desired, by release number and part number. They are packaged separately. See page G5-39.

**Backstop**—Specify by reducer size and part number. They are packaged separately and may be found in the tables on Page G5-31.

**Motor Mounts**—Specify, if desired. Give Motor Mount size number and part number. They are packaged separately. For Torque-Arm Motor Mounts, see page G5-32 or G6-8 for Screw Conveyor Motor Mounts.

**Hydraulic Motor**—Available for Hydrolift Drives. Specify motor size number and part number. Motors are packaged separately. See page G7-12.

**Oil**—Reducers are shipped without oil. For oil capacity, see page G5-44.

## Class Number of Application for Selection of Torque-Arm Speed Reducer Size

**Table 1—Class Number of Application (See Selection Information, Page G5-8)**

Application	★ Type of Load	Class No		Application	★ Type of Load	Class No		Application	★ Type of Load	Class No	
		10 Hour Day	Over 10 Hrs a Day			10 Hour Day	Over 10 Hrs a Day			10 Hour Day	Over 10 Hrs a Day
AGITATORS				CRANES & HOISTS				PAPER MILLS			
Pure Liquids	Uni.	I	II	Bridge Drive	MS	*	*	Agitators (Mixers)	MS	II	II
Semi-Liquids	MS	II	II	Trolley Drive	MS	*	*	Bleacher	Uni.	I	II
Variable Density	MS	II	II	CUTTER-HEAD DRIVES	*	*	*	Calenders	HS	...	III
BREWING & DIS-				DRYERS & COOLERS	MS	II	II	Cylinders	MS	...	II
TILLING				ROTARY				Felt Stretcher	Uni.	...	II
Bottling Machinery	Uni.	I	II	ELEVATORS				Winders	Uni.	...	II
Brew Kettles, Con-	Uni.	...	II	Bucket, Uniform	Uni.	I	II	PEBBLE MILLS	MS	II	III
tinuous Duty	Uni.	...	II	Load	MS	II	III	PUMPS			
Cookers, Continuous	Uni.	...	II	Bucket, Heavy Load	MS	II	III	Proportioning	*	*	*
Duty	Uni.	...	II	Freight	MS	II	III	Reciprocating	Uni.	I	II
Mash Tubs, Con-	Uni.	...	II	FOOD INDUSTRY				Open Discharge			
tinuous Duty	Uni.	...	II	Beet Slicer	MS	I	II	Double-Acting			
Scale Hopper, Fre-	MS	II	II	Cereal Cooker	Uni.	I	II	Multi-Cylinder	MS	II	III
quent Starts	MS	II	II	Dough Mixer	MS	II	II	Single Cylinder	*	*	*
CAN-FILLING				Meat Grinders	MS	II	II	Rotary, Gear Type	Uni.	I	II
MACHINES	Uni.	I	II	LAUNDRY WASHERS				Constant Density	MS	II	II
CAR DUMPERS	HS	III	...	Reversing	*	*	*	Variable Density	Uni.	I	II
CAR PULLERS	*	*	...	LAUNDRY TUMBLERS	MS	II	III	RUBBER INDUSTRY			
CLARIFIERS	Uni.	I	II	LINE SHAFTS				Tire Building	MS	II	II
CLASSIFIERS	MS	II	II	Uniform Load	Uni.	I	II	Machines			
CLAY WORKING				Heavy Load	MS	II	II	Tire & Tube Press			
MACHINERY				MACHINE TOOLS				Openers	Uni.	I	I
Brick Press	HS	III	III	Auxiliary Drives	Uni.	I	II	SCREENS			
Briquette Machine	HS	III	III	Main Drive, Uniform				Air Washing	Uni.	I	II
Extruders & Mixers	MS	II	III	Load	MS	II	II	Rotary, Stone or			
CONVEYORS, UNI-				Main Drive, Heavy				Gravel	MS	II	II
FORMALLY LOADED				Load	HS	III	III	Traveling Water			
OR FED				METAL MILLS				Intake	Uni.	I	II
Apron	Uni.	I	II	Table Conveyors				Shaker	MS	II	III
Assembly	Uni.	I	II	Non-Reversing	MS	II	III	SKIP HOISTS	MS	II	...
Belt	Uni.	I	II	Reversing	*	*	*	STOKERS	Uni.	...	II
Flight	Uni.	II	II	Wire Drawing &				TEXTILE INDUSTRY			
Oven	Uni.	I	II	Flattening Machine	MS	II	III	Batchers	MS	II	II
Live Roll (Package)	Uni.	I	II	MIXERS				Calenders	HS	III	III
Screw	Uni.	I	II	Concrete Mixers,	MS	II	III	Card Machines	MS	II	II
CONVEYORS, HEAVY				Continuous				Dry Cans	MS	II	II
DUTY NOT UNI-				Concrete Mixers,				Dyeing Machinery	MS	...	...
FORMALLY FED				Intermittent	MS	I	II	Looms	*	*	*
Apron	MS	II	III	Constant Density	Uni.	I	II	Mangles	MS	II	II
Assembly	MS	II	II	Variable Density	MS	II	II	Nappers	MS	II	II
Belt	MS	II	II	Liquid	Uni.	I	II	Soapers	MS	II	II
Bucket or Pan	MS	II	II	Semi-Liquid	MS	II	II	Spinners	MS	II	III
Flight	MS	II	II					Tenter Frames	MS	II	II
Live Roll	*	*	*					TUMBLING BARRELS	HS	III	III
Oven	MS	II	II					WINDLASS	MS	II	III
Reciprocating	HS	III	III								
Screw	MS	II	II								

★ Uni.—Uniform; MS—Moderate Shock; HS—Heavy Shock

\* Consult factory

**Note:** It is recommended that class numbers for special applications be agreed upon by user and factory when variations of the table may be

required. Special conditions can be any special type of prime mover, starting or stopping conditions, system conditions, ambient conditions, lubrication, overloads, overspeeds, brake equipped applications, high inertia and reversing loads.

**Table 2—Max. RPM of Shaft**

DOUBLE REDUCTION															SINGLE REDUCTION			
Reducer Size	Input			Driven			Reducer Size	Input			Driven			Reducer Size	Input	Driven		
	Nominal Ratio			Nominal Ratio				Nominal Ratio			Nominal Ratio							
	9	15	25	9	15	25		15	25	30	15	25	30					
TX1	1888	2149	2179	200	140	85	TX18	1809	1847	....	120	75	..	TX105	2246	400		
TX2	1850	1974	1994	200	140	85	TX19	1814	1825	....	120	75	..	TX205	2116	400		
TX3	1783	2083	2100	200	140	85	TX10	1819	1823	....	120	75	..	TX305	2240	400		
TX14	1936	2118	2072	200	140	85	TX12	1786	1849	....	120	75	..	TX405	2260	400		
TX15	1791	1925	2044	200	125	80	TD13	....	1855	....	75	..	TX505	2267	400			
TX16	1842	1916	2010	200	125	80	TD14	....	1855	....	75	..	TX605	2267	400			
TX17	1923	1827	1844	200	125	75	TD15	....	....	1746	....	57	..	TX705	2143	400		
														TX805	2200	400		
														TX905	2154	400		



# Class I Applications for Selection of Torque-Arm Reducer Size

Use the table below for applications listed as Class I on page G5-9. For Class I Applications the maximum value of starting and momentary peak loads should not exceed  $2 \times$  Motor HP Rating. If it exceeds this amount it

should be divided by 2 and the result used in the table below instead of the Motor HP Rating.  
**Example**—See page G5-8.

**Table 3—Class I Applications—Selection of Reducer Size**

Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
<b>1/4 HP MOTOR</b>		<b>1/4 HP MOTOR (Contd.)</b>		<b>2 HP MOTOR (Contd.)</b>		<b>7 1/2 HP MOTOR (Contd.)</b>		<b>15 HP MOTOR (Contd.)</b>		<b>25 HP MOTOR (Contd.)</b>	
4-70	TXT125 TXT115	141-200	TXT105 TXT109	141-200	TXT105 TXT109	19-29	TXT525	67-70	TXT425 TXT415	75-80	TXT515 TXT525
71-85	TXT115 TXT125	201-400	TXT105	201-400	TXT105	30-49	TXT425 TXT415	71-85	TXT415 TXT425	81-115	TXT515 + TXT509 +
86-115	TXT105	<b>1 HP MOTOR</b>		<b>3 HP MOTOR</b>		50-70	TXT325 TXT315	86-109	TXT415 TXT409	116-119	TXT505 TXT509 + TXT515 +
116-140	TXT109 TXT105	4-5	TXT425	5-6	TXT625	71-74	TXT315 TXT325	110-115	TXT409 TXT415	120-132	TXT415 + TXT505 TXT509 +
141-200	TXT105 TXT109	6-7	TXT325	7-10	TXT525	75-85	TXT215 TXT225	116-140	TXT315 + TXT405 TXT409 +	133-140	TXT409 + TXT415 + TXT505
201-400	TXT105	8-15	TXT225	11-18	TXT425	86-115	TXT215 TXT209	141-200	TXT405 TXT409 +	141-193	TXT405 TXT409 +
<b>1/2 HP MOTOR</b>		16-70	TXT125 TXT115	19-26	TXT325	116-140	TXT205 TXT209 TXT215	201-400	TXT305	194-200	TXT405 TXT409 +
5-70	TXT125 TXT115	71-85	TXT115 TXT125	27-51	TXT225 TXT215	141-200	TXT205 TXT209 TXT215	4-7	TXT1225	201-400	TXT405
71-85	TXT115 TXT125	86-115	TXT115 TXT109	52-70	TXT125 TXT115	201-231	TXT205	8-9	TXT1024		
86-115	TXT115 TXT109	116-140	TXT105 TXT109 TXT115	71-85	TXT115 TXT125	232-400	TXT105	10-16	TXT926	<b>30 HP MOTOR</b>	
116-140	TXT105 TXT109 TXT115	141-200	TXT105 TXT109 TXT115	86-115	TXT115 TXT109	<b>10 HP MOTOR</b>		17-21	TXT825	4-5	TD1425
141-200	TXT105 TXT109	201-400	TXT105	116-140	TXT105 TXT109 TXT115	5-8	TXT926	22-34	TXT725 TXT715	6-11	TXT1225
201-400	TXT105	<b>1 1/2 HP MOTOR</b>		141-200	TXT105 TXT109	9-10	TXT825	35-57	TXT625 TXT615	12-14	TXT1024
4-6	TXT225	4-5	TXT525	201-400	TXT105	11-15	TXT725	58-70	TXT525 TXT515	15-25	TXT926
7-70	TXT125 TXT115	6-8	TXT425	<b>5 HP MOTOR</b>		16-25	TXT625	71-80	TXT515 TXT525	26-33	TXT825 TXT815
71-85	TXT115 TXT125	9-12	TXT325	5-7	TXT725	26-39	TXT525 TXT515	81-85	TXT515 TXT525	34-56	TXT725 TXT715
86-115	TXT115 TXT109	13-23	TXT225	8-11	TXT625	40-70	TXT425 TXT415	86-92	TXT515 TXT509	57-70	TXT625 + TXT615 +
116-140	TXT105 TXT109 TXT115	24-70	TXT125 TXT115	12-19	TXT525	71-85	TXT315 TXT325	93-98	TXT415 + TXT509	71-80	TXT615 + TXT609
141-200	TXT105 TXT109	71-85	TXT115 TXT125	20-32	TXT425 TXT415	86-103	TXT315 TXT309	99-115	TXT415 + TXT409 +	81-91	TXT615 + TXT609
201-400	TXT105	86-115	TXT115 TXT109	33-46	TXT325 TXT315	104-115	TXT215 TXT209	116-140	TXT409 + TXT415 + TXT505	92-93	TXT615 + TXT509 +
<b>3/4 HP MOTOR</b>		116-140	TXT105 TXT109 TXT115	47-70	TXT225 TXT215	116-140	TXT209 TXT215 TXT305	141-200	TXT405 TXT409 +	94-115	TXT515 + TXT509 +
4-6	TXT225	141-200	TXT105 TXT109 TXT115	71-85	TXT215 TXT225	141-191	TXT305 TXT309	201-400	TXT405 TXT409 +	116-125	TXT509 + TXT515 + TXT605
7-70	TXT125 TXT115	201-400	TXT105	86-92	TXT109 TXT215	192-200	TXT205 TXT309	201-400	TXT405	126-145	TXT509 + TXT605
71-85	TXT115 TXT125	<b>2 HP MOTOR</b>		93-115	TXT115 TXT109	<b>15 HP MOTOR</b>		5-9	TXT1225	146-165	TXT505 TXT509 +
86-115	TXT115 TXT109	5-7	TXT525	116-119	TXT109 TXT115	3-5	TXT1225	10-11	TXT1024	166-200	TXT409 + TXT505
116-140	TXT105 TXT109 TXT115	8-11	TXT425	120-140	TXT105 TXT109 TXT115	6	TXT1024	12-20	TXT926	201-281	TXT505
141-200	TXT105 TXT109	12-17	TXT325	141-200	TXT105 TXT109	7-12	TXT926	21-28	TXT825	282-400	TXT405
201-400	TXT105	18-32	TXT225 TXT215	201-400	TXT105	13-16	TXT825	29-44	TXT725 TXT715	<b>40 HP MOTOR</b>	
<b>1 HP MOTOR</b>		33-70	TXT125 TXT115	201-400	TXT105	17-25	TXT725	45-70	TXT625 TXT615	5-6	TD1425
4-5	TXT325	71-85	TXT115 TXT125	<b>7 1/2 HP MOTOR</b>		26-39	TXT625 TXT615	71-74	TXT615 TXT625	7	TD1325
6-10	TXT225	86-115	TXT115 TXT109	4-6	TXT926	40-66	TXT525 TXT515			8-14	TXT1225
11-70	TXT125 TXT115	116-140	TXT105 TXT109 TXT115	7	TXT825						
71-85	TXT115 TXT125			8-11	TXT725						
86-115	TXT115 TXT109			12-18	TXT625						
116-140	TXT105 TXT109 TXT115										

+ Fan Cooling required—See page G5-40.

\*Heat Exchanger required—See page G5-40.

**Note:** Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.

# Class I Applications for Selection of Torque-Arm Reducer Size (Contd.)

**Table 3—Class I Applications—Selection of Reducer Size (Contd.)**

Table 3—Class 1 Applications—Selection of Reducer Size (Contd.)											
Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
<b>40 HP MOTOR (Contd.)</b>		<b>50 HP MOTOR (Contd.)</b>		<b>60 HP MOTOR (Contd.)</b>		<b>100 HP MOTOR (Contd.)</b>		<b>150 HP MOTOR (Contd.)</b>		<b>300 HP MOTOR (Contd.)</b>	
15-20	TXT1024	76-104	TXT715+ TXT709+	163-200	TXT705 TXT709+	37-58	TXT1024 TXT1015	59-70	TXT1024+ TXT1015+	71-75	TDT1325*
21-33	TXT926 TXT915	105-115	TXT615+ TXT709+	201-285	TXT705	59-70	TXT926+ TXT915+	71-75	TXT1015+ TXT1024+	83-120	TXT1215*
34-48	TXT825 TXT815			286-400	TXT605	71-75	TXT915+ TXT926+	76-92	TXT1015+	<b>350 HP MOTOR</b>	
49-70	TXT725+ TXT715+	116-125	TXT609+ TXT615+ TXT705	<b>75 HP MOTOR</b>		76-94	TXT915+	93-120	TXT915+	23-43	TDT1530+
71-75	TXT715+ TXT725+	126-178	TXT609+ TXT705	5-8	TDT1530	95-120	TXT815+	143-332	TXT905+	44-69	TDT1425*
76-79	TXT715+	179-200	TXT605 TXT609+	9-13	TDT1425	121-131	TXT905	333-400	TXT805+	70-75	TDT1325*
80-81	TXT615+	201-400	TXT609+ TDT1425	14-15	TDT1325	132-239	TXT805+	<b>200 HP MOTOR</b>		<b>400 HP MOTOR</b>	
82-115	TXT615+ TXT609+			16-27	TXT1225	240-400	TXT705+	12-23	TDT1530	27-50	TDT1530+
116-125	TDT1530 TDT1425 TDT1325	<b>60 HP MOTOR</b>		28-40	TXT1024 TXT1015	<b>125 HP MOTOR</b>		24-36	TDT1425	51-75	TDT1425*
		4-6	TDT1530	41-67	TXT926+ TXT915+	8-14	TDT1530	37-51	TDT1325+	<b>450 HP MOTOR</b>	
		7-10	TDT1425	68-70	TXT825+ TXT815+	15-22	TDT1425	52-70	TXT1225* TXT1215*	30-31	TDT1530*
126-200	TXT605 TDT1530 TDT1425	11-12	TDT1325	71-75	TXT815+ TDT1425	23-29	TDT1325	71-76	TXT1215* TDT1530*	32-57	TDT1530+
201-260	TXT605 TDT1530	13-22	TXT1225	76-103	TXT815+	30-47	TXT1225 TDT1530	76-81	TXT1215*	61-75	TDT1425*
261-400	TXT505	23-32	TXT1024 TDT1530	104-115	TXT715+ TDT1530	48-70	TXT1024+ TDT1530	82-120	TXT1015+	<b>500 HP MOTOR</b>	
<b>50 HP MOTOR</b>		33-52	TXT926 TDT1530	116-120	TXT709+ TDT1530	71-75	TXT1015+ TDT1530	278-400	TXT905+	34-57	TDT1530*
3-5	TDT1530	53-70	TXT825+ TDT1530	121-167	TXT709+ TDT1530	76-120	TXT915+	<b>250 HP MOTOR</b>		66-75	TDT1425*
6-8	TDT1425	71-75	TXT815+ TDT1530	168-188	TXT705 TDT1530	121-194	TXT905+	16-30	TDT1530	<b>600 HP MOTOR</b>	
9	TDT1325			189-400	TXT705	195-400	TXT805+	31-46	TDT1425+	41-57	TDT1530*
10-18	TXT1225	76-79	TXT815+	<b>100 HP MOTOR</b>		<b>150 HP MOTOR</b>		47-67	TDT1325+	<b>700 HP MOTOR</b>	
19-26	TXT1024	80-115	TXT715+ TDT1530	6-11	TDT1530	9-17	TDT1530	68-75	TXT1225* TDT1530*	50-57	TDT1530*
27-42	TXT926 TDT1530	116-120	TXT709+ TDT1530	12-17	TDT1425	18-27	TDT1425	76-120	TXT1215*		
43-64	TXT825 TDT1530			18-22	TDT1325	28-36	TDT1325	<b>300 HP MOTOR</b>			
65-70	TXT725+ TDT1530	121-145	TXT705 TDT1530	23-36	TXT1225 TDT1530	37-52	TXT1225 TDT1215	19-36	TDT1530		
71-75	TXT715+ TDT1530	146-162	TXT609+ TDT1530	<b>150 HP MOTOR</b>		53-58	TXT1225+ TDT1530	37-58	TDT1425*		
								59-70	TDT1325+		

+ Fan Cooling required—See page G5-40.

\*Heat Exchanger required—See page G5-40.

**Note:** Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.



# Class II Applications for Selection of Torque-Arm Reducer Size

Use the table below for applications listed as Class II on page G5-9. For Class II Applications the maximum value of starting and momentary peak loads should not exceed  $2.8 \times$  Motor HP Rating. If it exceeds

this amount it should be divided by 2.8 and the result used in the table below instead of the Motor HP Rating.  
**Example**—See page G5-8.

**Table 4—Class II Applications—Selection of Reducer Size**

Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	
¼ HP MOTOR		¾ HP MOTOR (Cont.)		3 HP MOTOR		7½ HP MOTOR (Cont.)		15 HP MOTOR (Cont.)		25 HP MOTOR (Cont.)		
5-70	TXT125 TXT115	201-400	TXT105	5	TXT725	71-75	TXT415 TXT425	116-140	TXT409 + TXT415 TXT505	187-200	TXT505 TDT509 +	
1 HP MOTOR				6-9	TXT625					201-400	TXT505	
71-85	TXT115 TXT125	5-7	TXT425	10-15	TXT525	76-85	TXT315 TXT325	141-153	TXT409 + TXT505	30 HP MOTOR		
86-115	TXT115 TXT109	8-11	TXT325	16-26	TXT425 TXT415	86-110	TXT315 TXT309	154-200	TXT409 + TXT405	5-7	TDT1425	
116-140	TXT105 TXT109 TXT115	12-22	TXT225	27-38	TXT325 TXT315	111-115	TXT215 TXT309	401-400	TXT405	8	TDT1325	
141-200	TXT105 TXT109	23-70	TXT125 TXT115	39-70	TXT225 TXT215	116-140	TXT209 TXT215 TXT305	20 HP MOTOR		9-15	TXT1225	
201-400	TXT105	71-85	TXT115 TXT125	71-75	TXT215 TXT225	141-200	TXT209 TXT305	5	TXT1325	16-21	TXT1024	
½ HP MOTOR		86-115	TXT115 TXT109	76-85	TXT115 TXT125	201-210	TXT305	6-10	TXT1224	22-34	TXT926 TXT915	
4-6	TXT225	116-140	TXT105 TXT109 TXT115	86-115	TXT115 TXT109	211-400	TXT205	11-13	TXT1024	35-52	TXT825 TXT815	
7-70	TXT125 TXT115	141-200	TXT105 TXT109	116-140	TXT105 TXT109 TXT115	10 HP MOTOR		14-23	TXT926	53-70	TXT725 TXT715	
71-85	TXT115 TXT125	201-400	TXT105	141-200	TXT105 TXT109 TXT115	3-5	TXT1225	24-31	TXT825 TXT815	71-75	TXT715 TXT725	
86-115	TXT115 TXT109	1½ HP MOTOR		201-400	TXT105	6	TXT1024	32-51	TXT725 TXT715	76-84	TXT715	
116-140	TXT105 TXT109 TXT115	5-7	TXT525	141-200	TXT105	7-11	TXT926	52-70	TXT625 TXT615	85-89	TXT615 + TDT609 +	
141-200	TXT105 TXT109	8-12	TXT425	5 HP MOTOR		12-14	TXT825	71-80	TXT615 TXT625	90-115	TXT615 + TDT609 +	
201-400	TXT105	13-18	TXT325	4-5	TXT926	15-23	TXT725	81-86	TXT615	116-125	TDT609 + TDT615 + TDT705	
½ HP MOTOR		19-34	TXT225 TXT215	6	TXT825	24-38	TXT625 TXT615	87-89	TXT515	126-144	TXT605 TDT609 +	
4-5	TXT325	35-70	TXT125 TXT115	7-10	TXT725	39-60	TXT525 TXT515	90-115	TXT515 TDT509 +	145-200	TXT509 + TDT605	
6-9	TXT225	71-85	TXT115 TXT125	11-17	TXT625	61-70	TXT425 TXT415	116-125	TXT509 + TDT515 TDT605	201-296	TXT605	
10-70	TXT125 TXT115	86-115	TXT115 TXT109	18-27	TXT525	71-85	TXT415 TXT425	126-129	TXT509 + TDT605	297-400	TXT805	
71-85	TXT115 TXT125	116-140	TXT105 TXT109 TXT115	28-46	TXT425 TXT415	86-106	TXT409 TXT415	130-152	TXT505 TDT509 +	40 HP MOTOR		
86-115	TXT115 TXT109	141-200	TXT105 TXT109 TXT115	47-70	TXT325 TXT315	107-115	TXT315 TXT309	153-200	TXT409 + TDT505	4-6	TDT1530	
116-140	TXT105 TXT109 TXT115	201-400	TXT105	71-85	TXT215 TXT225	116-140	TXT309 TXT315 TXT405	201-243	TXT505	7-9	TDT1425	
141-200	TXT105 TXT109	2 HP MOTOR		86-115	TXT215 TXT209	141-179	TXT309 TDT405	244-400	TXT405	10-11	TDT1325	
201-400	TXT105	4-5	TXT625	116-136	TXT205 TDT209 TDT215	180-200	TXT305 TDT309	25 HP MOTOR	5-6	TXT1425	12-20	TXT1225
¾ HP MOTOR		6-10	TXT525	137-140	TXT115 TDT205 TDT209	26 HP MOTOR	27 HP MOTOR	28 HP MOTOR	7-12	TXT1225	21-29	TXT1024
4-5	TXT425	11-16	TXT425	141-191	TXT109 TDT205	15 HP MOTOR		29 HP MOTOR	13-17	TXT1024	30-48	TXT926 TDT915
6-8	TXT325	17-24	TXT325 TXT315	192-200	TXT105 TDT109	4-7	TXT1225	30 HP MOTOR	18-29	TXT926	49-70	TXT825 TDT815
9-16	TXT225	25-47	TXT225 TDT215	201-400	TXT105	8-9	TXT1024	31 HP MOTOR	30-42	TXT825 TDT815	71-73	TXT815 TDT825
17-70	TXT125 TXT115	48-70	TXT125 TDT115	7½ HP MOTOR		10-17	TXT926	32 HP MOTOR	43-68	TXT725 TDT715	74-75	TXT715 + TDT725 +
71-85	TXT115 TDT125	71-85	TXT115 TDT125	5-8	TXT926	18-23	TXT825	33 HP MOTOR	69-80	TXT615 + TDT625 +	76-89	TXT715 + TDT715 +
86-115	TXT115 TDT109	86-115	TXT115 TDT109	9-10	TXT825	24-37	TXT725 TDT715	34 HP MOTOR	81-89	TXT615 +	90-97	TXT709 + TDT709 +
116-140	TXT105 TDT109 TDT115	116-140	TXT105 TDT109 TDT115	11-16	TXT725	38-61	TXT625 TDT615	35 HP MOTOR	90-116	TXT615 + TDT609	98-115	TXT715 + TDT715 +
141-200	TXT105 TDT109	141-200	TXT105 TDT109	17-27	TXT625	62-80	TXT515 TDT525	36 HP MOTOR	117-125	TXT509 + TDT515 + TDT605	116-119	TXT709 + TDT715 +
201-400	TXT105 TDT109	2 HP MOTOR		28-42	TXT525 TDT515	81-97	TXT515	37 HP MOTOR	126-186	TXT509 + TDT605	120-125	TXT615 + TDT705 TDT709 +
43-70	TXT425 TDT415	7½ HP MOTOR		7½ HP MOTOR		98-115	TXT415 TDT409 +	38 HP MOTOR	126-186	TXT509 + TDT605	126-133	TXT705 TDT709 +

+ Fan Cooling required—See page G5-40.

\* Heat Exchanger required—See page G5-40.

**NOTE:** Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.

## Class II Applications for Selection of Torque-Arm Reducer Size (Contd.)

Table 4—Class II Applications—Selection of Reducer Size (Contd.)

Table 4—Class II Applications—Selection of Reducer Size (Cont'd.)									
Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
<b>40 HP MOTOR (Cont'd.)</b>		<b>60 HP MOTOR</b>		<b>75 HP MOTOR (Cont'd.)</b>		<b>125 HP MOTOR</b>		<b>250 HP MOTOR</b>	
134-200	TXT609 + TXT705	5-9	TD11530	71-76	TXT915 + TXT926 +	11-20	TD11530	23-43	TD11530
		10-14	TD11425			21-30	TD11425	44-69	TD11425*
201-234	TXT705	15-18	TD11325	76-100	TXT915 +	31-43	TD11325	70-75	TD11325 +
235-400	TXT605	19-30	TXT1225	101-115	TXT815 + TXT905	44-54	TXT1225 + TXT1215	<b>300 HP MOTOR</b>	
<b>50 HP MOTOR</b>		31-47	TXT1024 TXT1015	116-120	TXT905 TXT815 +	55-70	TXT1225 + TXT1215 +	28-53	TD11530
5-8	TD11530	48-70	TXT926 + TXT915 +	121-144	TXT905	71-75	TXT1015 + TXT1024 +	54-75	TD11425*
9-12	TD11425	71-75	TXT915 + TXT926 +	145-158	TXT805			<b>350 HP MOTOR</b>	
13-14	TD11325	76-77	TXT915 +	159-187	TXT709 + TXT805	76-111	TXT1015 +	33-57	TD11530
15-25	TXT1225	78-118	TXT815 +	188-285	TXT805	112-120	TXT915 +	66-75	TD11425*
26-37	TXT1024 TXT1015	119-120	TXT709 + TXT715 +	286-400	TXT805 +	192-400	TXT905 +	<b>400 HP MOTOR</b>	
38-62	TXT926 TXT915	121-186	TXT709 + TXT805	<b>100 HP MOTOR</b>		<b>150 HP MOTOR</b>		38-57	TD11530 +
63-70	TXT825 TXT815	187-200	TXT705 TXT709 +	8-16	TD11530	13-25	TD11530	<b>450 HP MOTOR</b>	
71-75	TXT815 TXT825	201-400	TXT705	17-24	TD11425	26-38	TD11425	43-57	TD11530 +
76-89	TXT815		TXT709 +	25-33	TD11325	39-54	TD11325	<b>500 HP MOTOR</b>	
90-95	TXT709 + TXT815	7-12	TD11530	34-54	TXT1225 TXT1215	55-70	TXT1225 + TXT1215 +	50-57	TD11530 +
96-115	TXT715 + TXT709 +	13-18	TD11425	55-70	TXT1024 TXT1015	71-75	TXT1215 + TXT1225 +		
116-120	TXT709 + TXT715 +	19-24	TD11325	71-75	TXT1015 TXT1024	76-86	TXT1215*		
121-151	TXT709 + TXT805	25-38	TXT1225 TXT1215	76-85	TXT1015	87-120	TXT1015 +		
152-200	TXT705 TXT709 +	39-61	TXT1024 TXT1015	86-120	TXT915 +	321-400	TXT905 +		
201-400	TXT705	62-70	TXT926 + TXT915 +	124-268	TXT905 +	<b>200 HP MOTOR</b>			
				269-400	TXT805 +	18-33	TD11530		
						34-53	TD11425 +		
						54-75	TD11325 +		
						77-120	TXT1215*		

+ Fan Cooling required—See page G5-40.

\*Heat Exchanger required—See page G5-40.

NOTE: Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.



## Class III Applications for Selection of Torque-Arm Reducer Size

Use the table below for applications listed as Class III on page G5-9. For Class III Applications the maximum value of starting and momentary peak loads should not exceed  $4 \times$  Motor HP Rating. If it exceeds this amount it

should be divided by 4 and the result used in the table below instead of the Motor HP Rating.  
**Example**—See page G5-8.

**Table 5—Class III Applications—Selection of Reducer Size**

Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
<b>¼ HP MOTOR</b>		<b>¾ HP MOTOR (Cont.)</b>		<b>2 HP MOTOR</b>		<b>5 HP MOTOR (Cont.)</b>		<b>10 HP MOTOR (Cont.)</b>	
4-6	TXT225	9-12	TXT325	4-5	TXT725	16-25	TXT625	35-57	TXT625
7-70	TXT125	13-23	TXT225	6-8	TXT625	26-39	TXT525		TXT615
	TXT115	24-70	TXT125	9-15	TXT525		TXT515	58-70	TXT525
71-85	TXT115		TXT115	16-25	TXT425	40-70	TXT425		TXT515
	TXT125	71-85	TXT125	26-36	TXT325		TXT415	71-80	TXT515
86-89	TXT115		TXT115		TXT315	71-85	TXT315		TXT525
90-115	TXT115	86-115	TXT115	37-71	TXT225		TXT309	81-92	TXT515
	TXT109		TXT109		TXT215	86-103	TXT315	93-115	TXT415
116-140	TXT105	116-140	TXT105	72-85	TXT115		TXT309		TXT409
	TXT109		TXT109		TXT125	104-115	TXT215	116-140	TXT415
	TXT115		TXT115	86-115	TXT115		TXT309		TXT505
141-200	TXT105	141-200	TXT105		TXT109	116-140	TXT209	141	TXT409
	TXT109		TXT109	116-140	TXT105		TXT215		TXT505
201-400	TXT105	201-400	TXT105		TXT109		TXT305		
					TXT115	141-190	TXT209	142-166	TXT405
<b>½ HP MOTOR</b>		<b>1 HP MOTOR</b>		141-200	TXT105		TXT305		TXT409
5-9	TXT225	5-7	TXT525		TXT109	191-200	TXT205	167-200	TXT309
10-70	TXT125	8-11	TXT425	201-400	TXT105		TXT209		TXT405
	TXT115	12-17	TXT325			201-400	TXT205	201-400	TXT405
70-85	TXT115	18-32	TXT225	<b>3 HP MOTOR</b>		<b>7½ HP MOTOR</b>		<b>15 HP MOTOR</b>	
	TXT125	33-70	TXT125	5	TXT825	5	TXT1225	4-5	TXT1425
86-115	TXT115		TXT115	6-8	TXT725	6	TXT1024	6-11	TXT1225
	TXT109	71-85	TXT115	9-14	TXT625	7-12	TXT926	12-14	TXT1024
116-140	TXT105		TXT125	15-23	TXT525	13-16	TXT825	15-25	TXT926
	TXT109	86-115	TXT115	24-39	TXT425	17-25	TXT725	26-33	TXT825
	TXT115		TXT109		TXT415	26-41	TXT625		TXT815
141-200	TXT105	116-140	TXT105	40-57	TXT325		TXT615	34-56	TXT725
	TXT109		TXT109		TXT315	42-66	TXT525		TXT715
201-400	TXT105		TXT115	58-70	TXT225		TXT515	57-70	TXT625
<b>½ HP MOTOR</b>		141-200	TXT105		TXT215	67-70	TXT425	71-80	TXT615
4-5	TXT425		TXT109	71-85	TXT225		TXT415		TXT625
6-7	TXT325	201-400	TXT105		TXT215	71-85	TXT415	81-93	TXT615
8-15	TXT225	<b>1½ HP MOTOR</b>		86-113	TXT109			94-115	TXT515
16-70	TXT125	5-6	TXT625			86-115	TXT415		TXT509
	TXT115	7-10	TXT525	114-115	TXT115		TXT409	116-125	TXT509
71-85	TXT115	11-18	TXT425		TXT109	116-140	TXT309		TXT515
	TXT125	19-26	TXT325	116-140	TXT115		TXT315		TXT605
86-115	TXT115		TXT225		TXT205	141-199	TXT309	126-145	TXT509
	TXT109	27-51	TXT125	141-155	TXT105		TXT405		TXT605
116-140	TXT105		TXT215		TXT209	200-400	TXT305	146-165	TXT505
	TXT109	52-70	TXT125	156-200	TXT105	<b>10 HP MOTOR</b>			TXT509
	TXT115		TXT115		TXT109	4-7	TXT1225	166-200	TXT409 +
141-200	TXT105	71-85	TXT115	201-400	TXT105	8-9	TXT1024	201-280	TXT505
	TXT109		TXT125			10-16	TXT926	281-400	TXT405
201-400	TXT105	86-115	TXT109	<b>5 HP MOTOR</b>		17-21	TXT825	<b>20 HP MOTOR</b>	
<b>¾ HP MOTOR</b>		116-140	TXT105	5-8	TXT926	22-34	TXT725	5-6	TD1425
4-5	TXT525		TXT109	9-10	TXT825		TXT715	7	TD1325
6-8	TXT425	141-200	TXT105	11-15	TXT725			8-14	TXT1225
			TXT109					15-20	TXT1024
		201-400	TXT105						

+ Fan Cooling required—See page G5-40.

\*Heat Exchanger required—See page G5-40.

**NOTE:** Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.

# Class III Application for Selection of Torque-Arm Reducer Size (Contd.)

Table 5—Class III Applications—Selection of Reducer Size (Contd.)

Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
<b>20 HP MOTOR (Cont.)</b>		<b>25 HP MOTOR (Cont.)</b>		<b>40 HP MOTOR</b>		<b>50 HP MOTOR (Cont.)</b>		<b>100 HP MOTOR (Cont.)</b>	
21-33	TXT926 TXT915	105-113	TXT615 + TXT709	5-9	TD1530	150-199	TXT709 + TXT805	37-51	TD1325
34-48	TXT825 TXT815	114-115	TXT615 + TXT609 +	10-14	TD1425	200-239	TXT805	57-70	TXT1225 + TDX1215 +
49-70	TXT725 TXT715	116-125	TXT609 + TXT615 + TXT705	15-17	TD1325	240-400	TXT705	71-76	TXT1215 + TDX1225 +
71-75	TXT715 TXT725	126-179	TXT609 + TXT705	18-29	TXT1225	<b>60 HP MOTOR</b>		76-81	TXT1215 +
76-79	TXT715	180-182	TXT605 TDX609 +	30-44	TXT1024 TDX1015	7-14	TD1530	82-120	TXT1015 +
80-111	TXT615 TDX609	183-199	TXT509 + TDX605	45-70	TXT926 TDX915	15-21	TD1425	277-400	TDX905 +
112-115	TXT615 + TDX609	200-400	TDX605	71-72	TXT915 TDX926	22-28	TD1325	<b>125 HP MOTOR</b>	
116-125	TXT605 TDX609 TDX615 +	5-6	TD1530	73-75	TXT825 TDX815	29-45	TXT1225 TDX1215	16-30	TD1530
126-136	TXT605 TDX609	7-10	TD1425	76-115	TDX815	46-71	TXT1024 TDX1015	31-42	TD1425
137-199	TXT509 + TDX605	11-12	TD1325	116-120	TXT709 + TDX715 +	72-75	TXT915 + TDX926 +	43-46	TD1425 +
200-260	TXT605	13-22	TDX1225	121-178	TXT709 + TDX805	76-117	TXT915 +	47-63	TD1325
261-400	TXT505	23-32	TXT1024 TDX1015	179-199	TXT705 TDX709 +	118-120	TDX815 +	64-67	TD1325 +
<b>25 HP MOTOR</b>		33-52	TXT926 TDX915	200-400	TDX705	121-187	TDX905	68-70	TXT1225 + TDX1215 +
5	TD1530	53-70	TXT825 TDX815	<b>50 HP MOTOR</b>		188-199	TXT709 + TDX805	71-75	TXT1215 + TDX1225 +
6-8	TD1425	71-75	TXT815 TDX825	6-11	TD1530	200-400	TDX805 +	76-120	TXT1215*
9	TD1325	76-79	TXT815	12-17	TD1425	<b>75 HP MOTOR</b>		<b>150 HP MOTOR</b>	
10-18	TXT1225	80-89	TXT715	18-22	TD1325	9-17	TD1530	19-36	TD1530
19-26	TXT1024	90-115	TXT709 TDX715 +	23-36	TXT1225 TDX1215	18-27	TD1425	37-39	TD1425
27-42	TXT926 TDX915	116-120	TXT705 TDX709 TDX715 +	37-58	TXT1024 TDX1015	28-36	TD1325	40-58	TD1425 +
43-64	TXT825 TDX815	121-145	TXT705 TDX709 TDX715 +	59-70	TXT926 + TDX915 +	37-58	TXT1225 TDX1215	59-75	TD1325 +
65-70	TXT725 TDX715	146-199	TXT609 + TDX705	71-75	TXT915 + TDX926 +	59-70	TXT1024 TDX1015	83-110	TDX1215*
71-75	TXT715 TDX725	200-285	TXT705	76-94	TXT915 +	71-75	TXT1015 TDX1024	<b>200 HP MOTOR</b>	
76-89	TXT715	286-400	TDX605	95-115	TDX815 +	76-92	TXT1015	27-50	TD1530
90-104	TXT715 TDX709			116-125	TXT905 TDX815 +	93-120	TXT915 +	51-75	TD1425*
				126-132	TDX905	144-332	TDX905 +	<b>250 HP MOTOR</b>	
				132-149	TDX805	333-400	TDX805 +	34-57	TD1530
						<b>100 HP MOTOR</b>		66-75	TD1425*
						12-23	TD1530	<b>300 HP MOTOR</b>	
						24-36	TD1425	41-57	TD1530
								<b>350 HP MOTOR</b>	
								50-57	TD1530

+ Fan Cooling required—See page G5-40.

\*Heat Exchanger required—See page G5-40.

NOTE: Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.



## Dodge Torque-Arm Reducers **SELECTION GUIDE**

Here's a handy reference sheet to facilitate quick selection and specification of Dodge Torque-Arm Speed Reducers. It identifies information required to

make a selection, provides a step-by-step selection format, and includes a V-belt drive specification section.

### SELECTION INFORMATION REQUIRED

Type of Driven Equipment: \_\_\_\_\_  
Class of Service: \_\_\_\_\_  
Type of Load: Uniform \_\_\_\_\_ Moderate \_\_\_\_\_ Shock \_\_\_\_\_  
Motor Type: HP \_\_\_\_\_ RPM \_\_\_\_\_ Other \_\_\_\_\_ Frame \_\_\_\_\_ Shaft Size \_\_\_\_\_  
RPM of Driven Equipment: \_\_\_\_\_  
Driven Shaft Diameter: \_\_\_\_\_  
Type of Reducer Mounting: \_\_\_\_\_ Horizontal \_\_\_\_\_ Vertical \_\_\_\_\_ Flange \_\_\_\_\_ Incline \_\_\_\_\_  
Unusual Temperatures: Yes \_\_\_\_\_ No \_\_\_\_\_  
Specify: \_\_\_\_\_  
Other Application Characteristics: dusty, reversing, start/stop, etc.  
Describe: \_\_\_\_\_

### REDUCER DRIVE SELECTION

Determine Class of Service: \_\_\_\_\_  
Select Torque-Arm Reducer Size and Ratio: \_\_\_\_\_ Taper \_\_\_\_\_ Straight \_\_\_\_\_  
Specify Driven Shaft Size: \_\_\_\_\_  
Specify Accessories Required: \_\_\_\_\_  
Motor Mount \_\_\_\_\_ Backstop \_\_\_\_\_ Tri-Matic Release \_\_\_\_\_ Cooling Fan \_\_\_\_\_  
Auxiliary Seals \_\_\_\_\_ Other \_\_\_\_\_

### V-BELT DRIVE SPECIFICATION

Belt Ratio Required: \_\_\_\_\_ Service Factor: \_\_\_\_\_  
Belt Center Distance: \_\_\_\_\_  
Driver: Sheave \_\_\_\_\_  
Bushing \_\_\_\_\_  
Driven: Sheave \_\_\_\_\_  
Bushing \_\_\_\_\_  
Belts: Size \_\_\_\_\_ Quantity: \_\_\_\_\_

For more detailed application analysis and assistance contact Dodge Customer Service or Application Engineering.

# DODGE Torque-Arm & Screw Conveyor Drives With New DODGE V-XT V-Drive Packages\* COMPUTER SELECTION CAPABILITY

A new set of programs has been implemented, and complete selection tables for Torque-Arm Reducers, Accessories, and V-Belt drives have been added to our Computer. When the program is accessed, the application data can be entered, and the proper reducer and accessories will be selected. Also displayed will be part numbers, inventory availability, and prices.

This readily available, computer-aided sales tool means saving time, reducing costs, and responding with accurate product recommendations.

## DODGE TXT TORQUE-ARM SPEED REDUCERS AND SCXT SCREW CONVEYOR DRIVES WITH MOTOR MOUNTS V-XT DRIVE PACKAGE SELECTIONS

- Total Drive Packages, Including Accessories
- Built-In Service Factors
- Fast & Easy Selection
- Manufacturer Recommended Drive Selections
- One-Step Engineering Specification
- Both Dyna-V Narrow & A, B, C Classical V-Belt Selections
- Instant Stock Check on Lawrenceburg
- List & Net Price Capability

### COMPUTER SELECTED DRIVE PACKAGES SELECTION—PRICING—INVENTORY STATUS DODGE TORQUE-ARM SHAFT MOUNTED SPEED REDUCERS

```

3RD. MECHANICAL GROUP 1-A REDUCER DRIVE SELECTION
CLASS OF SERVICE = 2 1/2 OR 3 * USE A DASH BETWEEN *
MOTOR SPEED RPM 1750 HORSEPOWER 1 * INTEGER AND FRACTIONS *
OUTPUT RPM OF DRIVEN EQUIPMENT 65
SHAFT DIAMETER OF DRIVEN SHAFT (REDUCER BORE SIZE) 2-7/16
TYPE OF MOUNTING H HORIZONTAL SHAFT V VERTICAL SHAFT
BUSHING STYLE REQUIRED C C-TAPER BUSHED S STRAIGHT BORE
QUANTITY DESIRED 1 REDUCER MULT. 650 V-XT PKG. MULT. 650 (3 DECIMAL POS.)
BELT STYLE 3 C-CLASSICAL D-DYNA-V BELT MULT. 200 SHV/BUSH MULT. 200
PART NUMBER DESCRIPTION UNTY. UNIT 1ST MUL. NET AV.
24222 TX7205 TAPER BUSHED REDUCE 1 000000 000 000000 0
250101 TX7215/225-225-335 BACKSTG 1 000000 000 000000 0
241391 1/2" MOTOR MOUNT ASSEMB 1 000000 000 000000 0
242136 1 7/16 TDT2 TAPERED BUSH AT 1 000000 000 000000 0
CHECK THE DRIVEN SHAFT AND KEY FOR STRENGTH
481601 TXT V-DRIVE 0650 SHF 1 000000 000 000000 0
THE ABOVE V-XT V-DRIVE PACKAGE CONSISTS OF THE FOLLOWING:
107221 3/4X475 DYNA V COGGED BELT 1 2 000000 000 000000 0
122128 2/3W2 65-110B 1 000000 000 000000 0
119373 110B X 1 3/8-1X 1 000000 000 000000 0
122186 2/3W3 3-121D 1 000000 000 000000 0
119201 121C X 1 1/8-1X 1 000000 000 000000 0
    
```

PF2 = HELP FOR CLASS SELECTION ENTER = CONTINUE PF11 = PROD PF12 = MENU

```

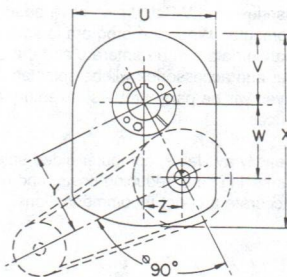
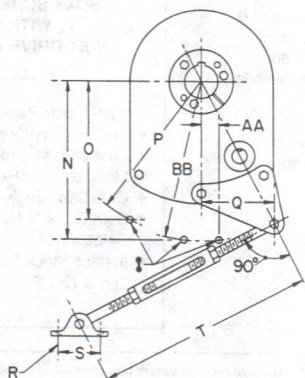
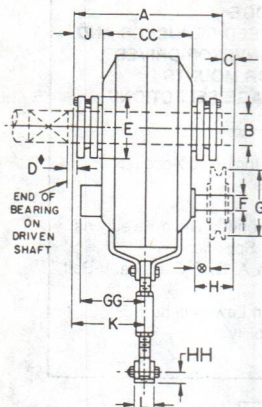
CONV. MECHANICAL GROUP 1-A SCREW CONVEYOR DRIVE SELECTION
CLASS OF SERVICE = 2 1/2 OR 3 * USE A DASH BETWEEN *
MOTOR SPEED RPM 1750 HORSEPOWER 10 * INTEGER AND FRACTIONS *
OUTPUT RPM OF DRIVEN EQUIPMENT 65
DRIVE SHAFT DIAMETER 2-7/16 CONVEYOR SCREW DIAMETER 10
TYPE OF MOUNTING H HORIZONTAL SHAFT V VERTICAL SHAFT
ADAPTER STYLE REQUIRED C C-STD. ADAPTOR A-ADJUSTABLE PACKING
ROUGH END STYLE U U-JU-F-FLANGE F-FLARED FLANGE
QUANTITY DESIRED 1 CONV. MULT. 650 V-XT PKG. MULT. 650 (3 DECIMAL POS.)
BELT STYLE 3 C-CLASSICAL D-DYNA-V BELT MULT. 200 SHV/BUSH MULT. 200
PART NUMBER DESCRIPTION UNTY. UNIT 1ST MUL. NET AV.
354066 SC47425 SCREW CONVEYOR REDU 1 000000 000 000000 0
354118 C4 X 2 7/16 DRIVE SHAFT 1 000000 000 000000 0
354069 M418 SCD MOTOR MOUNT 1 000000 000 000000 0
354121 C4 ADAPTER ASSEMB 1 000000 000 000000 0
354222 12U X 2 7/16 TROUGH END PLA 1 000000 000 000000 0
482077 SC47 V-DRIVE 0650 10HP 1 000000 000 000000 0
THE ABOVE V-XT V-DRIVE PACKAGE CONSISTS OF THE FOLLOWING:
107168 3/4X400 DYNA V COGGED BELT 1 2 000000 000 000000 0
122196 2/3W6 2-161D 1 000000 000 000000 0
119225 161D X 1 3/8-1X 1 000000 000 000000 0
122197 2/3W6 5-161D 1 000000 000 000000 0
119226 161D X 1 7/16-1X 1 000000 000 000000 0
    
```

PF2 = HELP FOR CLASS SELECTION ENTER = CONTINUE PF11 = PROD PF12 = MENU

For complete Dodge V-XT V-Drive package selections consult Bulletin #A718-2.



## Sizes TXT1 thru TXT10 Double Reduction Taper Bushed Torque-Arm Speed Reducers



- ◆ RECOMMENDED MINIMUM DISTANCE TO LOOSEN BEARING USING BUSHING SCREWS AS JACK SCREWS.

- ◎ KEEP AS CLOSE AS POSSIBLE.

REDUCER WILL OPERATE SATISFACTORILY AT 90° OR 180° FROM NORMAL POSITION SHOWN IN RIGHT HAND VIEW BY RELOCATING BREATHER AND DRAIN PLUGS.

- † THE IDEAL POSITION FOR THE TORQUE ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF ATTACHMENT OF THE TORQUE ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. **CAUTION:** EXCEEDING THE  $\pm 30^\circ$  VARIANCE OF THE TORQUE ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

- ‡ OPTIONAL LOCATIONS FOR ATTACHING TORQUE-ARM.

- ◎ THE V-BELT DRIVE MAY BE LOCATED IN ANY CONVENIENT POSITION. IF THE TORQUE-ARM IS TO BE USED TO TIGHTEN THE BELTS, THE DRIVE SHOULD BE AT ABOUT 90° TO A LINE BETWEEN THE INPUT AND OUTPUT SHAFTS.

## Sizes TXT1 thru TXT10 Double Reduction Taper Bushed Torque-Arm Speed Reducers

Reducer Size						Gear Ratio			Part Number		
Dodge No.			AGMA Code								
Series			Series			Series			Series		
9	15	25	9	15	25	9	15	25	9	15	25
TXT109	TXT115	TXT125	107D09	107D15	107D25	9.44	15.35	25.64	241092	241065	241066
TXT209	TXT215	TXT225	115D09	115D15	115D25	9.25	14.10	23.46	242079	242082	242083
TXT309	TXT315	TXT325	203D09	203D15	203D25	8.95	14.88	24.71	243383	243350	243351
TXT409	TXT415	TXT425	207D09	207D15	207D25	9.69	15.13	24.38	244344	244125	244126
TXT509	TXT515	TXT525	215D09	215D15	215D25	8.96	15.40	25.56	245500	245501	245502
TXT609	TXT615	TXT625	307D09	307D15	307D25	9.21	15.33	25.13	246149	246150	246151
TXT709	TXT715	TXT725	315D09	315D15	315D25	9.62	15.23	24.59	247159	247160	247161
—	TXT815	TXT825	—	407D15	407D25	—	15.08	24.62	—	248279	248280
—	TXT915	TXT926	—	415D15	415D26	—	15.12	25.66	—	249269	249270
—	TXT1015	TXT1024	—	507D15	507D24	—	15.16	24.30	—	272600	272601

# Sizes TXT1 thru TXT10 Double Reduction Taper Bushed Torque-Arm Speed Reducers

Sizes TXT1 thru TXT10

Double Reduction Taper Bushed Torque-Arm Speed Reducer®

Dodge No. Series			Wt.	A	B Max. Bore ♥	C	D	E	F and Keyseat		G*	
											Nominal Ratio	
9	15	25									9	15, 25
TXT109	TXT115	TXT125	39	7 <sup>3</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>16</sub>	2	1 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub> x 3 <sup>3</sup> / <sub>32</sub> x 2 <sup>11</sup> / <sub>16</sub>	4.0	3.0
TXT209	TXT215	TXT225	47	7 <sup>7</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>16</sub> x 2 <sup>1</sup> / <sub>2</sub>	5.0	3.0
TXT309	TXT315	TXT325	80	8 <sup>29</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>16</sub> x 2 <sup>7</sup> / <sub>16</sub>	5.0	4.0
TXT409	TXT415	TXT425	98	9 <sup>3</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	3	1 <sup>3</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub> x 3 <sup>1</sup> / <sub>16</sub> x 4 <sup>1</sup> / <sub>16</sub>	6.0	4.6
TXT509	TXT515	TXT525	151	10 <sup>7</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>16</sub>	3 <sup>19</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>4</sub> x 4 <sup>1</sup> / <sub>2</sub>	6.5	5.4
TXT609	TXT615	TXT625	215	11 <sup>1</sup> / <sub>2</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>4</sub> x 4 <sup>1</sup> / <sub>2</sub>	7.0	6.2
TXT709	TXT715	TXT725	380	12 <sup>13</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub> x 5 <sup>1</sup> / <sub>16</sub> x 4 <sup>3</sup> / <sub>4</sub>	7.0	6.2
—	TXT815	TXT825	600	14 <sup>1</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub> x 5 <sup>1</sup> / <sub>16</sub> x 5 <sup>3</sup> / <sub>16</sub>	—	6.2
—	TXT915	TXT926	650	14 <sup>13</sup> / <sub>32</sub>	4 <sup>1</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub> x 5 <sup>1</sup> / <sub>16</sub> x 7 <sup>3</sup> / <sub>4</sub>	—	8.0
—	TXT1015	TXT1024	850	15 <sup>1</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>16</sub>	6 <sup>23</sup> / <sub>64</sub>	2 <sup>7</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub> x 5 <sup>1</sup> / <sub>16</sub> x 7 <sup>7</sup> / <sub>16</sub>	—	8.5

Dodge No.			H	J	K	L	N	O	P Rad.	Q	R Bolt	S	T	
Series													Min.	Max.
9	15	25												
TXT109	TXT115	TXT125	3 <sup>3</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	—	7 <sup>1</sup> / <sub>4</sub>	8	3 <sup>13</sup> / <sub>32</sub>	3 <sup>8</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	23 <sup>13</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>16</sub>
TXT209	TXT215	TXT225	3 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>21</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	8 <sup>5</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>
TXT309	TXT315	TXT325	3 <sup>5</sup> / <sub>16</sub>	1 <sup>17</sup> / <sub>64</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	10 <sup>9</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>16</sub>	10 <sup>9</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>
TXT409	TXT415	TXT425	4 <sup>13</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	11 <sup>29</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>16</sub>	11 <sup>13</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4	29 <sup>3</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>16</sub>
TXT509	TXT515	TXT525	4 <sup>7</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	13 <sup>31</sup> / <sub>32</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	4	29 <sup>3</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>16</sub>
TXT609	TXT615	TXT625	5 <sup>27</sup> / <sub>64</sub>	1 <sup>15</sup> / <sub>16</sub>	5 <sup>49</sup> / <sub>64</sub>	2 <sup>3</sup> / <sub>4</sub>	15 <sup>27</sup> / <sub>32</sub>	13 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	29 <sup>3</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>16</sub>
TXT709	TXT715	TXT725	5 <sup>9</sup> / <sub>16</sub>	2 <sup>25</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>4</sub>	18 <sup>13</sup> / <sub>16</sub>	15 <sup>7</sup> / <sub>16</sub>	18 <sup>9</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	29 <sup>7</sup> / <sub>16</sub>	35 <sup>7</sup> / <sub>16</sub>
—	TXT815	TXT825	6 <sup>1</sup> / <sub>32</sub>	2 <sup>19</sup> / <sub>32</sub>	7	4	21 <sup>3</sup> / <sub>16</sub>	19 <sup>9</sup> / <sub>16</sub>	21	7 <sup>5</sup> / <sub>16</sub>	3 <sup>4</sup> / <sub>16</sub>	7	30	36
—	TXT915	TXT926	8 <sup>7</sup> / <sub>16</sub>	2 <sup>39</sup> / <sub>64</sub>	7 <sup>1</sup> / <sub>16</sub>	4	23 <sup>3</sup> / <sub>16</sub>	20 <sup>5</sup> / <sub>16</sub>	22 <sup>23</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>16</sub>	7	30	36
—	TXT1015	TXT1024	8 <sup>29</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>16</sub>	7 <sup>49</sup> / <sub>64</sub>	4	25 <sup>3</sup> / <sub>16</sub>	23 <sup>3</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	3 <sup>4</sup> / <sub>16</sub>	7	30	36

Dodge No.			U	V	W	X	Y	Z	AA	BB Rad.	CC	GG	HH
Series													
9	15	25											
TXT109	TXT115	TXT125	7 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>29</sup> / <sub>32</sub>	—	—	4 <sup>1</sup> / <sub>2</sub>	2 <sup>21</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>
TXT209	TXT215	TXT225	8 <sup>3</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	11 <sup>13</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	9	4 <sup>9</sup> / <sub>16</sub>	2 <sup>19</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT309	TXT315	TXT325	9 <sup>1</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>16</sub>	12 <sup>7</sup> / <sub>16</sub>	4 <sup>13</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>32</sub>	10 <sup>5</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT409	TXT415	TXT425	10 <sup>3</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>29</sup> / <sub>32</sub>	15 <sup>1</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>32</sub>	11 <sup>27</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>16</sub>	3 <sup>21</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>4</sub>
TXT509	TXT515	TXT525	13 <sup>1</sup> / <sub>16</sub>	6 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	18 <sup>9</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	1	14 <sup>1</sup> / <sub>32</sub>	6 <sup>5</sup> / <sub>16</sub>	4 <sup>17</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>4</sub>
TXT609	TXT615	TXT625	15 <sup>1</sup> / <sub>16</sub>	7 <sup>9</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>	15 <sup>5</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>16</sub>	4 <sup>9</sup> / <sub>16</sub>	2
TXT709	TXT715	TXT725	18 <sup>3</sup> / <sub>4</sub>	9 <sup>5</sup> / <sub>16</sub>	8 <sup>5</sup> / <sub>16</sub>	25 <sup>15</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	18 <sup>27</sup> / <sub>32</sub>	8 <sup>1</sup> / <sub>2</sub>	4 <sup>11</sup> / <sub>16</sub>	2
—	TXT815	TXT825	20 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>32</sub>	0	21 <sup>3</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	5 <sup>29</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>
—	TXT915	TXT926	22 <sup>5</sup> / <sub>16</sub>	11 <sup>5</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	31 <sup>1</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	6 <sup>19</sup> / <sub>32</sub>	0	23 <sup>3</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>16</sub>	5 <sup>23</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>
—	TXT1015	TXT1024	25 <sup>1</sup> / <sub>2</sub>	12 <sup>3</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>2</sub>	35	14 <sup>1</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>16</sub>	0	25 <sup>1</sup> / <sub>16</sub>	10 <sup>9</sup> / <sub>32</sub>	6 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>

Note: All reducers on this page require bushings. When ordering bushings separately, see page G5-23.

Note: Maximum RPM of shaft on page G5-9.

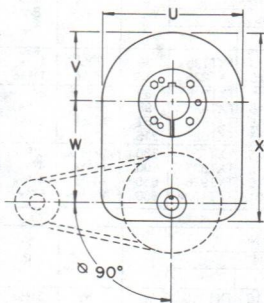
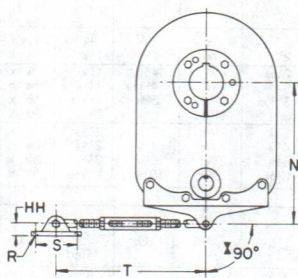
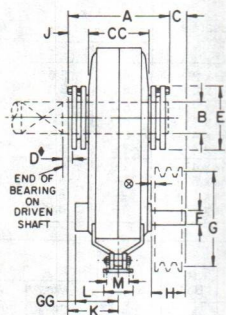
♥ See page G5-23 for bore and keyseat information.

\* Pitch diameter of driven sheave should not be less than G to prevent overloading reducer bearings.



# Sizes TXT 12/ TDT 13 thru TDT 15

## Double Reduction Taper Bushed Torque-Arm Speed Reducers



◆ RECOMMENDED MINIMUM DISTANCE TO LOOSEN BUSHING USING BUSHING SCREWS AS JACK SCREWS.

I THE IDEAL POSITION FOR THE TORQUE ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF ATTACHMENT OF THE TORQUE ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. CAUTION: EXCEEDING THE ±30° VARIANCE OF THE TORQUE ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

⊙ KEEP AS CLOSE AS POSSIBLE

⊙ THE V-BELT DRIVE MAY BE LOCATED IN ANY CONVENIENT POSITION. IF THE TORQUE ARM IS TO BE USED TO TIGHTEN THE BELTS, THE DRIVE SHOULD BE AT ABOUT 90° TO A LINE BETWEEN THE INPUT AND OUTPUT SHAFTS.

REDUCER WILL OPERATE SATISFACTORILY AT 90° OR 180° FROM NORMAL POSITION SHOWN IN THE CENTER VIEW BY RELOCATING BREATHER AND DRAIN PLUGS.

## Sizes TXT 12/ TDT 13 thru TDT 15

### Double Reduction Taper Bushed Torque-Arm Reducers

Reducer Size				Gear Ratio			Part Number			Wt.	A	B Max. Bore ▼	C	D	E	F and Keyseat		
Series			Series			Series												
15	25	30	15	25	30	15	25	30										
TXT1215	TXT1225	.....	14.89	24.65	.....	272615	272617	.....	1620	18 1/32	6 1/2	6 5/8	2 1/16	10 3/4	2 1/16	5/8 x 3/16 x 7 3/4		
.....	TDT1325	.....	.....	24.73	.....	.....	272250	.....	2210	21	7	6 1/8	2 1/16	12	2 1/16	3/4 x 3/8 x 7 1/4		
.....	TDT1425	.....	.....	24.80	.....	.....	272150	.....	3240	23 1/16	8	8 3/32	3	13 1/2	2 1/16	3/4 x 3/8 x 10 1/4		
.....	.....	TDT1530	.....	30.64	.....	.....	272370	.....	4600	28 1/16	10	9 3/32	4	17	3 7/16	7/8 x 7/16 x 11		
Ref. No.	G ★	H	J	K	L	M	N	R Bolt *	S	T		U	V	W	X	CC	GG	HH
										Min.	Max.							
TXT12	9.5	8 23/64	2 49/64	9 1/64	4 29/32	.....	3 1/8	1	8 7/16	30 1/2	36 1/2	31 1/2	15 5/8	22 29/32	43 1/2	12 15/16	8 9/16	3 3/8
TDT13	12.0	8 1/2	3 1/2	10 1/2	4 29/32	.....	3 5/8	1	8 7/16	30 1/2	36 1/2	34 1/2	16	24 27/64	45 13/16	14	9 9/16	3 3/8
TDT14	15.0	11 1/8	3 11/32	11 27/32	5 9/16	.....	3 9/16	1	8 31/32	31	37	39	17 1/4	26 5/32	50 1/16	17	10 5/32	3 1/2
TDT15	20.0	12 15/16	5 9/32	14 11/32	6 1/8	2 5/8	4 5/8	1	10 1/4	31	37	47	20 3/4	30 9/16	58 5/8	18 5/8	11 1/2	4

Note: All reducers on this page require bushings. When ordering bushings separately, see page G5-23.

Note: Maximum RPM of shaft on page G5-9.

Note: Two bolts required for TXT12 thru TDT14 sizes; Four for TDT15.

★ Pitch diameter of driven sheave should not be less than G to prevent overloading reducer bearings.

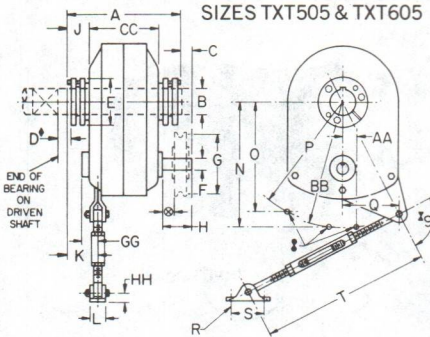
▲ Assembled on order. Consult factory when using backstop.

▼ See page G5-23 for bore and keyseat information.

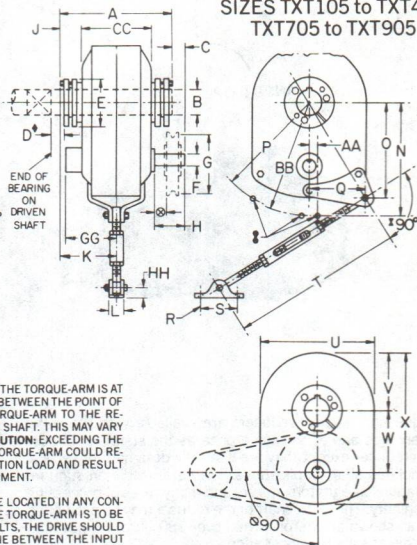
# SIZES TXT105 thru TXT905

## Single Reduction Taper Bushed Torque-Arm Speed Reducers

SIZES TXT505 & TXT605



SIZES TXT105 to TXT405  
TXT705 to TXT905



② KEEP AS CLOSE AS POSSIBLE.

REDUCER WILL OPERATE SATISFACTORILY AT 90° or 180° FROM NORMAL POSITION SHOWN IN FRONT VIEW BY RELOCATING BREATHER AND DRAIN PLUGS.

① OPTIONAL LOCATIONS FOR ATTACHING TORQUE ARM.

◆ RECOMMENDED MINIMUM DISTANCE TO LOOSEN BUSHING USING BUSHING SCREWS AS JACK SCREWS.

① THE IDEAL POSITION FOR THE TORQUE-ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF ATTACHMENT OF THE TORQUE-ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. **CAUTION:** EXCEEDING THE ±30° VARIANCE OF THE TORQUE-ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

② THE V-BELT DRIVE MAY BE LOCATED IN ANY CONVENIENT POSITION. IF THE TORQUE-ARM IS TO BE USED TO TIGHTEN THE BELTS, THE DRIVE SHOULD BE AT ABOUT 90° TO A LINE BETWEEN THE INPUT AND OUTPUT SHAFTS.

## Sizes TXT105 thru TXT905

### Single Reduction Taper Bushed Torque-Arm Speed Reducers

Reducer Size		Gear Ratio	Part Number	Wt.	A	B Max. Bore ♥	C	D	E	F and Keyseat	G ★	H	J	K	L		
Dodge No.	AGMA Code																
TXT105	107S05	5.62	241083	37	7 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	2	1 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	1/4 x 1/8 x 2	4.0	3 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	
TXT205	115S05	5.29	242249	47	7 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	3/8 x 3/16 x 2 3/4	3.0	3 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	3 <sup>21</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	
TXT305	203S05	5.60	243375	69	8 <sup>25</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	3/8 x 3/16 x 3 1/8	6.0	3 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	4 <sup>13</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	
TXT405	207S05	5.65	244345	88	9 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	3	1 <sup>3</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	1/2 x 1/4 x 3 13/16	7.0	4 <sup>13</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	
TXT505	215S05	5.67	245375	145	10 <sup>7</sup> / <sub>32</sub>	2 <sup>15</sup> / <sub>16</sub>	3 <sup>17</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>	1/2 x 1/4 x 4 1/2	9.0	5 <sup>1</sup> / <sub>2</sub>	1 <sup>59</sup> / <sub>64</sub>	2 <sup>3</sup> / <sub>32</sub>	1 <sup>17</sup> / <sub>16</sub>	
TXT605	307S05	5.67	246380	200	11 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>15</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>	1/2 x 1/4 x 4 1/2	6.5	5 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>16</sub>	2 <sup>29</sup> / <sub>64</sub>	2 <sup>1</sup> / <sub>4</sub>	
TXT705	315S05	5.36	247285	340	12 <sup>11</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	3 <sup>29</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	5/8 x 1/16 x 4 3/4	7.5	5 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>32</sub>	6 <sup>11</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>4</sub>	
TXT805	.....	5.50	248275	450	14 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	5/8 x 5/16 x 5 3/8	9.2	6 <sup>1</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>32</sub>	7 <sup>3</sup> / <sub>64</sub>	4	
TXT905	.....	5.38	249265	560	14 <sup>1</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	5/8 x 1/16 x 7 3/4	9.5	6 <sup>29</sup> / <sub>32</sub>	2 <sup>29</sup> / <sub>64</sub>	7 <sup>3</sup> / <sub>32</sub>	4	
Ref. No.	N	O	P Rad.	Q	R Bolt	S	T		U	V	W	X	AA	BB Rad.	CC	GG	HH
							Min.	Max.									
TXT105	.....	7 <sup>1</sup> / <sub>4</sub>	8	3 <sup>13</sup> / <sub>32</sub>	3/8	2 <sup>1</sup> / <sub>2</sub>	23 <sup>13</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>15</sup> / <sub>16</sub>	.....	.....	4 <sup>1</sup> / <sub>2</sub>	2 <sup>41</sup> / <sub>64</sub>	1 <sup>5</sup> / <sub>16</sub>
TXT205	8 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	8 <sup>9</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	7/16	3	26 <sup>13</sup> / <sub>16</sub>	32 <sup>13</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	11 <sup>13</sup> / <sub>32</sub>	13 <sup>1</sup> / <sub>16</sub>	9	4 <sup>9</sup> / <sub>16</sub>	2 <sup>29</sup> / <sub>64</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT305	10 <sup>9</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	10 <sup>9</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>16</sub>	7/16	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>32</sub>	10 <sup>9</sup> / <sub>8</sub>	5 <sup>9</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT405	11 <sup>25</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>16</sub>	11 <sup>15</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>2</sub>	1/2	4	29 <sup>9</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>32</sub>	11 <sup>27</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>8</sub>	3 <sup>15</sup> / <sub>32</sub>	1 <sup>9</sup> / <sub>4</sub>
TXT505	14 <sup>25</sup> / <sub>32</sub>	12 <sup>13</sup> / <sub>32</sub>	14 <sup>17</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>4</sub>	1/2	4	29 <sup>9</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>8</sub>	6 <sup>9</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	18 <sup>9</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>32</sub>	14 <sup>13</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>8</sub>	1 <sup>17</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
TXT605	16 <sup>1</sup> / <sub>8</sub>	14 <sup>7</sup> / <sub>32</sub>	16 <sup>7</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>32</sub>	5/8	4 <sup>3</sup> / <sub>4</sub>	29 <sup>9</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>8</sub>	7 <sup>9</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	7/8	16 <sup>21</sup> / <sub>32</sub>	7 <sup>7</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	2
TXT705	18 <sup>13</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>8</sub>	18 <sup>9</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	5/8	4 <sup>3</sup> / <sub>4</sub>	29 <sup>9</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	18 <sup>3</sup> / <sub>4</sub>	9 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	18 <sup>27</sup> / <sub>32</sub>	8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>16</sub>	2
TXT805	21 <sup>3</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>16</sub>	21	7 <sup>5</sup> / <sub>8</sub>	3/4	7	30	36	20 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>4</sub>	0	21 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	5 <sup>59</sup> / <sub>64</sub>	3 <sup>3</sup> / <sub>8</sub>
TXT905	23 <sup>5</sup> / <sub>8</sub>	20 <sup>5</sup> / <sub>8</sub>	22 <sup>5</sup> / <sub>64</sub>	9 <sup>1</sup> / <sub>2</sub>	3/4	7 <sup>1</sup> / <sub>32</sub>	30	36	22 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	31 <sup>11</sup> / <sub>16</sub>	0	23 <sup>5</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>8</sub>

Note: All reducers on this page require bushings. When ordering bushings separately, see page G5-23.

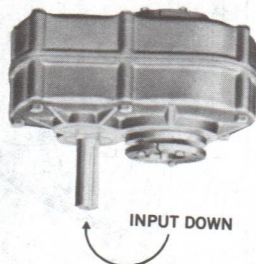
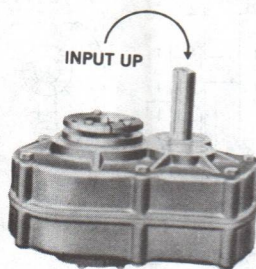
Note: Maximum RPM of shaft on page G5-9.

★ See page G5-23 for bore and keyseat information.

★ Pitch diameter of driven sheave should not be less than G to prevent overloading reducer bearings.



## Torque-Arm Vertical Taper Brushed Speed Reducers



Torque-Arm Vertical reducers are available with the same advantages and at the same price as the standard Torque-Arm reducer except they are specially designed for vertical or inclined shaft applications. They are usable on such installations as agitators, mixers and many types of processing machinery. The input shaft of the reducer may be positioned up, as shown above, or turned over 180° in down position, whichever suits the application.

Information on standard reducers should be referred to for vertical reducers. The size number of both types is the same except for the "V" suffix added to the vertical type. The equivalent sizes of standard reducers are shown in the table. The following may be used as an index for information

applying to both the vertical and standard Torque-Arm reducers:

**Backstops**—page G5-31.

**Bores & Keyseats**—page G5-23.

**Bushings**—page G5-23.

**Dimensions**—pages G5-19 thru G5-21.

**Ordering**—page G5-8.

**Overload Releases**—pages G5-38 & G5-39.

**Selection**—pages G5-8 thru G5-17.

**V-belt Drives**—section G8.

### Torque-Arm Vertical Taper Bushed Speed Reducers

Vertical Reducer Size	Part Number	Wt.	Equivalent Standard Reducer	Vertical Reducer Size	Part Number	Wt.	Equivalent Standard Reducer	Vertical Reducer Size	Part Number	Wt.	Equivalent Standard Reducer
TXT115V	241067	39	TXT115	TXT625V	246153	215	TXT625	TDI1325V	272250	2210	TDI1325
TXT125V	241068	39	TXT125	TXT715V	247162	380	TXT715	TDI1425V	272150	3240	TDI1425
TXT215V	242084	47	TXT215	TXT725V	247163	380	TXT725	TDI1530V	272370	4600	TDI1530
TXT225V	242085	47	TXT225	TXT815V	248281	600	TXT815	TXT105V	241084	37	TXT105
TXT315V	243352	80	TXT315	TXT825V	248282	600	TXT825	TXT205V	242250	47	TXT205
TXT325V	243353	80	TXT325	TXT915V	249271	650	TXT915	TXT305V	243376	69	TXT305
TXT415V	244127	98	TXT415	TXT926V	249272	650	TXT926	TXT405V	244346	88	TXT405
TXT425V	244128	98	TXT425	TXT1015V	272602	850	TXT1015	TXT505V	245376	145	TXT505
TXT515V	245503	151	TXT515	TXT1024V	272603	850	TXT1024	TXT605V	246381	200	TXT605
TXT525V	245504	151	TXT525	TXT1215V	272618	1620	TXT1215	TXT705V	247286	340	TXT705
TXT615V	246152	215	TXT615	TXT1225V	272619	1620	TXT1225	TXT805V	248276	450	TXT805
								TXT905V	249266	560	TXT905

▲ Standard reducer arranged for vertical mounting.

▲ Made-to-order.

\* Consult factory when using a reducer input shaft down with a backstop.

# Tapered Bushing Assemblies for Taper Bushed Speed Reducers

Speed Reducer Tapered Bushing Assemblies include two bushings, keys and mounting bolts. Bushing assemblies are not included with the taper bushed reducer. However, they

may be ordered separately, from the table below, by specifying part number, bore desired and bushing or reducer size.

## Tapered Bushing Assemblies Taper Bushed Speed Reducer

Reducer Size	Stock Bore	Shaft Keyseat Required†	Bushing Assemblies			Reducer Size	Stock Bore	Shaft Keyseat Required†	Bushing Assemblies		
			Size	Part No.	Wt.				Size	Part No.	Wt.
TXT109, TXT115, TXT125, TXT105, HXT115, HXT125, HXT105	1 7/16 (Max.)	3/8 x 3/16 x 6 7/16	TDT1	241292	1.5	TXT609, TXT625, TXT605, HXT615, HXT625	3 7/16 (Max.)	7/8 x 7/16 x 10 11/16	TDT6	246268	4.9
	1 3/8	5/16 x 3/32 x 6 7/16	TDT1	241294	1.7		3▲	3/4 x 3/8 x 10 11/16	TDT6	246283	9.4
	1 5/16▲		TDT1	241290	1.7		2 15/16▲		TDT6	246267	9.4
	1 1/4▲			241288	2.1		2 7/8▲		TDT6	246266	9.4
	1 3/8▲			241286	2.1		2 11/16▲		TDT6	246265	10.3
	1 7/8▲		TDT1	241282	2.1		2 1/2▲	5/8 x 5/16 x 10 11/16	TDT6	246264	11.5
	1 1/8▲	1/4 x 1/8 x 6 7/16		241280	2.3		2 7/16▲		TDT6	246263	11.5
	1▲			241278	2.3		2 1/4▲	1/2 x 1/4 x 10 11/16	TDT6	246262	13.4
							2 3/16▲		TDT6	246261	13.4
TXT209, TXT215, TXT225, TXT205, HXT215, HXT225, HXT205	1 5/16 (Max.)	1/2 x 1/4 x 6 11/16	TDT2	242168	2.2	TXT709, TXT715, TXT725, TXT705, HXT715, HXT725	3 15/16 (Max.)	1 x 1/2 x 11 27/32	TDT7	272136	13.1
	1 3/4	3/8 x 3/16 x 6 11/16		242166	3.1		3 3/16	7/8 x 7/16 x 11 27/32	TDT7	272135	18.1
	1 11/16			242164	3.1		3 1/8▲		TDT7	272134	21.8
	1 5/8▲		TDT2	242162	3.1		3▲		TDT7	272133	21.8
	1 7/8▲			242158	3.3		2 11/16▲		TDT7	272132	23.1
	1 7/16▲			242156	3.3		2 1/2▲		TDT7	272131	23.1
	1 3/8▲	5/16 x 5/32 x 6 11/16	TDT2	242154	3.5		2 7/8▲	3/4 x 3/8 x 11 27/32	TDT7	272130	23.1
	1 3/16			242152	3.5		2 3/4▲		TDT7	272129	23.1
	1 1/4▲	1/4 x 1/8 x 6 11/16	TDT2	242150	3.6		2 11/16▲	5/8 x 5/16 x 11 27/32	TDT7	272147	25.0
	1 3/8▲			242148	3.6		2 1/2▲		TDT7	272149	25.0
	1 7/8▲			242146	3.9		2 7/16▲		TDT7	272125	25.0
TXT309, TXT315, TXT325, TXT305, HXT315, HXT325, HXT305	2 3/16 (Max.)	1/2 x 1/4 x 8 1/16	TDT3	243276	2.9	TXT815, TXT825, TXT805	4 7/16 (Max.)	1 x 1/2 x 13 1/16	TDT8	272035	14.7
	2			243274	3.7		4 3/16		TDT8	272034	17.9
	1 5/16			243272	3.7		3 15/16		TDT8	272033	21.0
	1 7/8▲			243270	4.1		3 7/16▲	7/8 x 7/16 x 13 1/16	TDT8	272032	25.9
	1 3/4▲			243266	4.3		3 1/2▲		TDT8	272045	28.9
	1 11/16▲	3/8 x 3/16 x 8 1/16	TDT3	243268	4.3		3 3/16▲		TDT8	272048	28.9
	1 5/8▲			243264	5.0		2 5/8▲	1 1/4 x 5/8 x 12 15/16	TDT9	272080	19.6
	1 1/2▲			243262	5.0		4 15/16 (Max.)		TDT9	272079	25.9
	1 7/16▲			243260	5.0		4 7/16		TDT9	272077	30.7
	1 3/8▲	5/16 x 5/32 x 8 1/16	TDT3	243284	5.0		3 15/16▲	7/8 x 7/16 x 12 15/16	TDT9	272056	35.2
	1 5/16▲			243282	5.0		5 7/16 (Max.)	1 1/4 x 5/8 x 14 1/16	TDT10	272240	29.1
TXT409, TXT415, TXT425, TXT405, HXT415, HXT425, HXT405	2 7/16 (Max.)	5/8 x 5/16 x 9 1/32	TDT4	244115	5.4	TXT915, TXT926, TXT905	4 15/16	1 x 1/2 x 12 15/16	TDT9	272079	25.9
	2 1/4▲	1/2 x 1/4 x 9 1/32		244113	7.1		3 15/16▲		TDT9	272077	30.7
	2 3/16			244111	7.1		3 7/16▲	1 1/4 x 5/8 x 14 1/16	TDT9	272056	35.2
	2 1/8▲		TDT4	244109	7.1		4 15/16		TDT10	272240	29.1
	2 3/8			244095	8.2		4 7/16		TDT10	272238	43.3
	1 15/16▲			244093	8.2		3 15/16	1 x 1/2 x 14 1/16	TDT10	272214	48.4
	1 7/8▲			244089	8.2		6 1/2 (Max.)		TDT12	272219	39.0
	1 3/4▲	3/8 x 3/16 x 9 1/32	TDT4	244087	8.4		6 7/16	1 1/2 x 3/4 x 17 5/16	TDT12	272218	39.0
	1 11/16▲			244085	8.4		6		TDT12	272217	47.9
	1 5/8▲			244083	9.2		5 15/16		TDT12	272216	47.9
TXT509, TXT515, TXT525, TXT505, HXT515, HXT525, HXT505	2 1/8▲	3/4 x 3/8 x 9 9/16	TDT5	245112	6.2	TDT1325	5 7/16▲	1 1/4 x 5/8 x 17 5/16	TDT12	272215	54.3
	2 11/16			245110	7.4		7 (Max.)	1 3/4 x 3/4 x 19 9/16	TDT13	272257	78.8
	2 3/16▲	5/8 x 5/16 x 9 9/16	TDT5	245099	8.7		6 1/2▲	1 1/2 x 3/4 x 19 9/16	TDT13	272292	95.4
	2 7/16▲			245094	8.7		6▲		TDT13	272291	114.6
	2 1/4▲			245092	10.6		5 15/16▲		TDT13	272290	116.7
	2 3/8▲			245090	10.6		8 (Max.)	2 x 3/4 x 22 1/4	TDT14	272194	80.2
	2 15/16		TDT5	245088	10.6		7▲	1 3/4 x 3/4 x 22 1/4	TDT14	272193	137.1
	1 11/16▲	1/2 x 1/4 x 9 9/16		245086	10.6	TDT1425	6 1/2▲	1 1/2 x 3/4 x 22 1/4	TDT14	272192	162.1
	1 7/8▲			245084	11.0		6▲		TDT14	272191	187.1
							10 (Max.)		TDT15	272395	165.0
							9▲	2 x 3/4 x 27 5/16	TDT15	272396	250.0
						TDT1530	8 1/2▲		TDT15	272397	285.0
							8▲		TDT15	272398	320.0

† Shaft key furnished. Keys are full bore length.  
▲ Check the Driven Shaft and Key for strength.

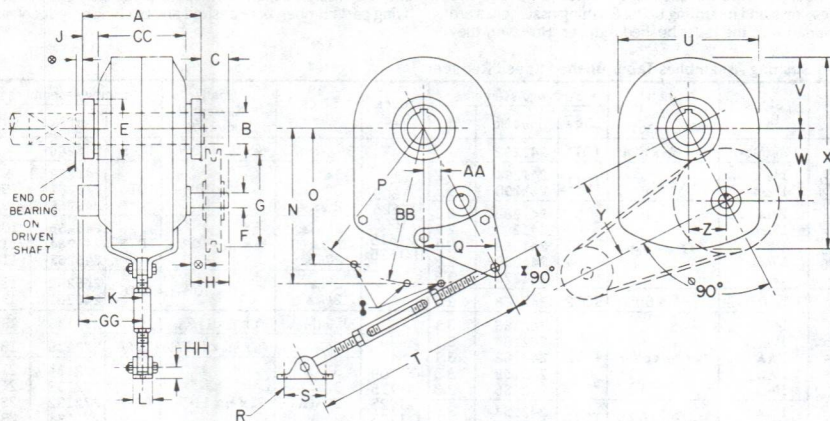
Note: Consult factory for bores not listed.  
▲ Made-to-order.



# Sizes TXT1 thru TXT10

## Double Reduction Straight Bore Torque-Arm Speed Reducers

### For the Replacement Market



⊙ KEEP AS CLOSE AS POSSIBLE.

REDUCER WILL OPERATE SATISFACTORILY AT 90° OR 180° FROM NORMAL POSITION SHOWN IN RIGHT HAND VIEW BY RELOCATING BREATHER AND DRAIN PLUGS.

† THE IDEAL POSITION FOR THE TORQUE ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF ATTACHMENT O OF THE TORQUE-ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. **CAUTION:** EXCEEDING THE ±30° VARIANCE OF THE TORQUE-ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

‡ OPTIONAL LOCATIONS FOR ATTACHING TORQUE-ARM.

⊙ THE V-BELT DRIVE MAY BE LOCATED IN ANY CONVENIENT POSITION. IF THE TORQUE-ARM IS TO BE USED TO TIGHTEN THE BELTS, THE DRIVE SHOULD BE AT ABOUT 90° TO A LINE BETWEEN THE INPUT AND OUTPUT SHAFTS.

## Sizes TXT1 thru TXT10

### Double Reduction Straight Bore Torque-Arm Speed Reducers

Reducer Size						Gear Ratio			Part Number		
Dodge No.			AGMA Code								
Series			Series			Series			Series		
9	15	25		15	25	9	15	25	9	15	25
TXT109	TXT115	TXT125	107D09	107D15	107D25	9.44	15.35	25.64	241327	241073	241074
TXT209	TXT215	TXT225	115D09	115D15	115D25	9.25	14.10	23.46	242327	242090	242091
TXT309	TXT315	TXT325	203D09	203D15	203D25	8.914	14.88	24.71	243226	243358	243359
TXT409	TXT415	TXT425	207D09	207D15	207D25	9.678	15.13	24.38	244327	244133	244134
TXT509	TXT515	TXT525	215D09	215D15	215D25	8.955	15.40	25.56	245509	245510	245511
TXT609	TXT615	TXT625	307D09	307D15	307D25	9.208	15.33	25.13	246327	246158	246159
TXT709	TXT715	TXT725	315D09	315D15	315D25	9.617	15.23	24.50	247327	247168	247169
—	TXT815	TXT825	—	407D15	407D25	—	15.08	24.62	—	248283	248284
—	TXT915	TXT926	—	415D15	415D25	—	15.12	25.66	—	249273	249274
—	TXT1015	TXT1024	—	507D15	507D24	—	15.16	24.30	—	272604	272605

# Sizes TXT1 thru TXT10

## Double Reduction Straight Bore Torque-Arm Speed Reducers

Dodge No.			Wt.	A	B Max. Bore ♥	C	E	F and Keyseat	G*		
Series									Nominal Ratio		
9	15	25							9	15, 25	
TXT109	TXT115	TXT125	39	5 <sup>9</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	2 <sup>23</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>	3/4	3/16 x 3/32 x 1 <sup>15</sup> / <sub>16</sub>	4.0	3.0
TXT209	TXT215	TXT225	47	5 <sup>13</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	3	3 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	1/4 x 1/8 x 2 <sup>1</sup> / <sub>2</sub>	5.0	3.0
TXT309	TXT315	TXT325	80	6 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>16</sub>	3	4	1 <sup>1</sup> / <sub>4</sub>	1/4 x 1/8 x 2 <sup>7</sup> / <sub>8</sub>	5.0	4.0
TXT409	TXT415	TXT425	98	7 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	4	4 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	3/8 x 3/16 x 4 <sup>1</sup> / <sub>16</sub>	6.0	4.6
TXT309	TXT515	TXT525	151	8 <sup>3</sup> / <sub>8</sub>	2 <sup>19</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	1/2 x 1/4 x 4 <sup>1</sup> / <sub>2</sub>	6.5	5.4
TXT609	TXT615	TXT625	215	9 <sup>9</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	1/2 x 1/4 x 4 <sup>1</sup> / <sub>2</sub>	7.0	6.2
TXT709	TXT715	TXT725	380	10 <sup>25</sup> / <sub>32</sub>	3 <sup>15</sup> / <sub>16</sub>	4 <sup>27</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	5/8 x 5/16 x 4 <sup>3</sup> / <sub>4</sub>	7.0	6.2
—	TXT815	TXT825	600	11 <sup>3</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>16</sub>	5 <sup>17</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>16</sub>	5/8 x 5/16 x 5 <sup>5</sup> / <sub>8</sub>	—	6.2
—	TXT915	TXT926	650	11 <sup>3</sup> / <sub>8</sub>	4 <sup>15</sup> / <sub>16</sub>	8	8 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>16</sub>	5/8 x 5/16 x 7 <sup>3</sup> / <sub>4</sub>	—	8.0
—	TXT1015	TXT1024	850	12 <sup>3</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>16</sub>	7 <sup>15</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	5/8 x 5/16 x 7 <sup>7</sup> / <sub>8</sub>	—	8.5

Dodge No.			H	J	K	L	N	O	P Rad.	Q	R Bolt	S	T	
Series													Min.	Max.
9	15	25												
TXT109	TXT115	TXT125	3 <sup>9</sup> / <sub>32</sub>	9/16	2 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	...	7 <sup>1</sup> / <sub>4</sub>	8	3 <sup>13</sup> / <sub>32</sub>	3/8	2 <sup>1</sup> / <sub>2</sub>	23 <sup>13</sup> / <sub>16</sub>	29 <sup>9</sup> / <sub>16</sub>
TXT209	TXT215	TXT225	3 <sup>3</sup> / <sub>8</sub>	5/8	2 <sup>29</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	8 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	7/16	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>
TXT309	TXT315	TXT325	3 <sup>5</sup> / <sub>8</sub>	5/8	3 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	10 <sup>9</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	10 <sup>9</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>16</sub>	7/16	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>
TXT409	TXT415	TXT425	4 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>32</sub>	3 <sup>29</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>16</sub>	11 <sup>25</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>16</sub>	11 <sup>15</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>2</sub>	1/2	4	29 <sup>3</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>16</sub>
TXT509	TXT515	TXT525	5 <sup>1</sup> / <sub>2</sub>	1	4 <sup>3</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	13 <sup>31</sup> / <sub>32</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>4</sub>	6 <sup>9</sup> / <sub>16</sub>	1/2	4	29 <sup>3</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>16</sub>
TXT609	TXT615	TXT625	5 <sup>27</sup> / <sub>64</sub>	1	4 <sup>13</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	15 <sup>27</sup> / <sub>32</sub>	13 <sup>5</sup> / <sub>8</sub>	15 <sup>11</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>4</sub>	5/8	4 <sup>3</sup> / <sub>4</sub>	29 <sup>3</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>16</sub>
TXT709	TXT715	TXT725	5 <sup>9</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>8</sub>	5 <sup>23</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>4</sub>	18 <sup>13</sup> / <sub>16</sub>	15 <sup>7</sup> / <sub>8</sub>	18 <sup>3</sup> / <sub>16</sub>	8 <sup>15</sup> / <sub>16</sub>	5/8	4 <sup>3</sup> / <sub>4</sub>	29 <sup>7</sup> / <sub>16</sub>	35 <sup>7</sup> / <sub>16</sub>
—	TXT815	TXT825	6 <sup>11</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	4	21 <sup>3</sup> / <sub>8</sub>	19 <sup>3</sup> / <sub>16</sub>	21	7 <sup>9</sup> / <sub>8</sub>	3/4	7	30	36
—	TXT915	TXT926	8 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	4	23 <sup>5</sup> / <sub>8</sub>	20 <sup>5</sup> / <sub>8</sub>	22 <sup>23</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>2</sub>	3/4	7	30	36
—	TXT1015	TXT1024	8 <sup>25</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>16</sub>	4	25 <sup>9</sup> / <sub>16</sub>	23 <sup>9</sup> / <sub>16</sub>	25 <sup>13</sup> / <sub>64</sub>	8 <sup>15</sup> / <sub>16</sub>	3/4	7	30	36

Dodge No.			U	V	W	X	Y	Z	AA	BB Rad.	CC	GG	HH
Series													
9	15	25											
TXT109	TXT115	TXT125	7 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>16</sub>	9 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>29</sup> / <sub>32</sub>	—	—	4 <sup>1</sup> / <sub>2</sub>	2 <sup>21</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>16</sub>
TXT209	TXT215	TXT225	8 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	11 <sup>13</sup> / <sub>32</sub>	4 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	9	4 <sup>9</sup> / <sub>16</sub>	2 <sup>19</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT309	TXT315	TXT325	9 <sup>1</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>16</sub>	12 <sup>7</sup> / <sub>8</sub>	4 <sup>13</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>32</sub>	10 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT409	TXT415	TXT425	10 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	5 <sup>29</sup> / <sub>32</sub>	15 <sup>5</sup> / <sub>8</sub>	5 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>32</sub>	11 <sup>27</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>3</sub>	3 <sup>21</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>4</sub>
TXT509	TXT515	TXT525	13 <sup>1</sup> / <sub>3</sub>	6 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	18 <sup>9</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	1	14 <sup>1</sup> / <sub>32</sub>	6 <sup>3</sup> / <sub>8</sub>	4 <sup>17</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>4</sub>
TXT609	TXT615	TXT625	15 <sup>1</sup> / <sub>8</sub>	7 <sup>9</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>4</sub>	21 <sup>5</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	4 <sup>9</sup> / <sub>32</sub>	1 <sup>9</sup> / <sub>16</sub>	15 <sup>5</sup> / <sub>8</sub>	7 <sup>9</sup> / <sub>8</sub>	4 <sup>9</sup> / <sub>16</sub>	2
TXT709	TXT715	TXT725	18 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>16</sub>	25 <sup>15</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	18 <sup>27</sup> / <sub>32</sub>	8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>16</sub>	2
—	TXT815	TXT825	20 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>32</sub>	0	21 <sup>9</sup> / <sub>8</sub>	9 <sup>5</sup> / <sub>8</sub>	5 <sup>25</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>8</sub>
—	TXT915	TXT926	22 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	31 <sup>11</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	6 <sup>9</sup> / <sub>32</sub>	0	23 <sup>3</sup> / <sub>8</sub>	9	5 <sup>23</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>8</sub>
—	TXT1015	TXT1024	25 <sup>1</sup> / <sub>2</sub>	12 <sup>3</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>2</sub>	35	14 <sup>3</sup> / <sub>8</sub>	6 <sup>9</sup> / <sub>16</sub>	0	25 <sup>3</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>8</sub>	6 <sup>15</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>

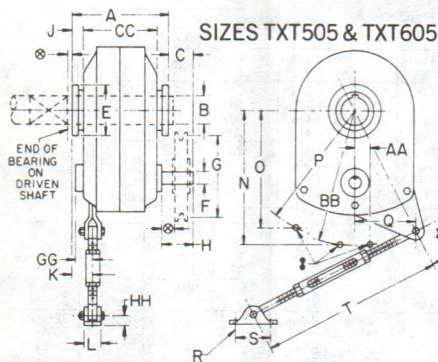
**Note:** Bushings not included with reducer. When ordering bushings separately, see page G5-28.

♥ No bushings required for these bores. See page G5-28 for bore and keyseat information.

\* Pitch diameter of driven sheave should not be less than G to prevent overloading reducer bearings.



## Single Reduction Straight Bore Torque-Arm Speed Reducers



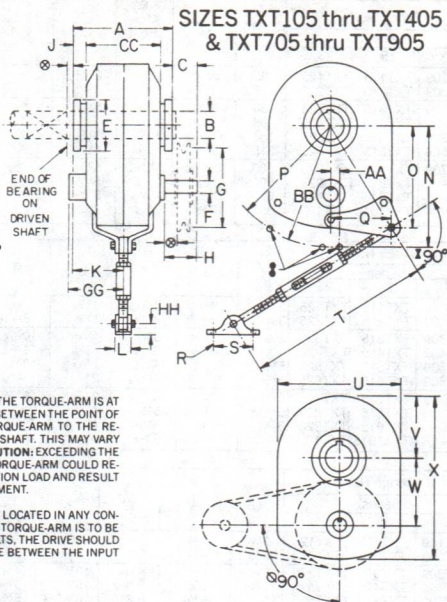
ⓧ KEEP AS CLOSE AS POSSIBLE.

REDUCER WILL OPERATE SATISFACTORILY AT 90° OR 180° FROM NORMAL POSITION. SHOWN IN FRONT VIEW BY RELOCATING BREATHER AND DRAIN PLUGS.

1 OPTIONAL LOCATIONS FOR ATTACHING TORQUE-ARM.

**I** THE IDEAL POSITION FOR THE TORQUE-ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF ATTACHMENT OF THE TORQUE-ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. **CAUTION:** EXCEEDING THE  $\pm 30^\circ$  VARIANCE OF THE TORQUE-ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

⊗ THE V-BELT DRIVE MAY BE LOCATED IN ANY CONVENIENT POSITION IF THE TORQUE-ARM IS TO BE USED TO TIGHTEN THE BELTS, THE DRIVE SHOULD BE AT ABOUT 90° TO A LINE BETWEEN THE INPUT AND OUTPUT SHAFTS.



**Sizes TXT105 thru TXT905  
Single Reduction Straight Bore Torque-Arm Speed Reducers**

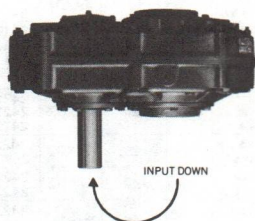
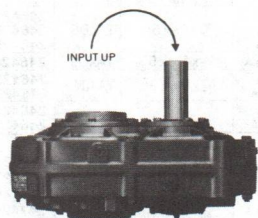
Reducer Size		Gear Ratio	Part Number	Wt.	A	B Max. Bore ▼	C	E	F and Keyseat	G ★	H	J	K	L			
Dodge No.	AGMA Code																
TXT105	107S05	5.62	<b>241087</b>	37	5 <sup>5</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	22 <sup>3</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	1/4 x 1/8 x 2	4.0	3 <sup>9</sup> / <sub>32</sub>	9/16	21 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>		
TXT205	115S05	5.29	<b>242253</b>	47	5 <sup>11</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	3	3 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	3/8 x 3/16 x 2 3/4	3.0	3 <sup>9</sup> / <sub>32</sub>	5/8	22 <sup>9</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>		
TXT305	203S05	5.62	<b>243579</b>	69	8 <sup>1</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>16</sub>	3	4 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	1/2 x 1/8 x 2 3/4	6.0	3 <sup>9</sup> / <sub>32</sub>	5/8	37 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>		
TXT405	207S05	5.65	<b>244349</b>	88	8 <sup>1</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>32</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	1/2 x 1/4 x 3 13/16	7.0	4 <sup>1</sup> / <sub>16</sub>	27 <sup>3</sup> / <sub>32</sub>	32 <sup>9</sup> / <sub>32</sub>	17 <sup>1</sup> / <sub>16</sub>		
TXT505	215S05	5.67	<b>245379</b>	145	9 <sup>1</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	1/2 x 1/4 x 4 1/2	9.0	5 <sup>1</sup> / <sub>2</sub>	1	17 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>		
TXT605	307S05	5.67	<b>246382</b>	200	9 <sup>9</sup> / <sub>16</sub>	31 <sup>1</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	1/2 x 1/4 x 4 1/2	6.5	5 <sup>5</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	29 <sup>1</sup> / <sub>16</sub>		
TXT705	315S05	5.67	<b>247287</b>	340	10 <sup>1</sup> / <sub>32</sub>	31 <sup>1</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	5/8 x 5/16 x 4 3/4	7.5	5 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>64</sub>	15 <sup>5</sup> / <sub>16</sub>	29 <sup>1</sup> / <sub>16</sub>		
TXT805	.....	5.50	<b>248277</b>	450	11 <sup>1</sup> / <sub>16</sub>	47 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	27 <sup>1</sup> / <sub>16</sub>	5/8 x 5/16 x 5 1/2	9.2	6 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	51 <sup>1</sup> / <sub>16</sub>	4		
TXT905	.....	5.38	<b>249267</b>	560	11 <sup>1</sup> / <sub>16</sub>	41 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	27 <sup>1</sup> / <sub>16</sub>	5/8 x 5/16 x 7 3/4	9.5	8 <sup>2</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	51 <sup>1</sup> / <sub>16</sub>	4		
Ref. No.	N	O	P Rad.	Q	R Bolt	S	T		U	V	W	X	AA	BB Rad.	CC	GG	HH
							Min.	Max.									
TXT105	.....	7 <sup>1</sup> / <sub>4</sub>	8	31 <sup>3</sup> / <sub>32</sub>	3/8	21 <sup>2</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>32</sub>	29 <sup>9</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	91 <sup>5</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>32</sub>	9	49 <sup>1</sup> / <sub>16</sub>	241 <sup>5</sup> / <sub>64</sub>	15 <sup>1</sup> / <sub>16</sub>
TXT205	8 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	41 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	3	261 <sup>5</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	111 <sup>3</sup> / <sub>32</sub>	31 <sup>3</sup> / <sub>32</sub>	9	49 <sup>1</sup> / <sub>16</sub>	253 <sup>6</sup> / <sub>64</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT305	10 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>32</sub>	41 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	3	261 <sup>5</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	41 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>8</sub>	127 <sup>1</sup> / <sub>8</sub>	103 <sup>1</sup> / <sub>32</sub>	5 <sup>5</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>16</sub>	37 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>
TXT405	11 <sup>2</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	51 <sup>2</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4	299 <sup>1</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	151 <sup>1</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>32</sub>	112 <sup>3</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>8</sub>	31 <sup>5</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>4</sub>
TXT505	14 <sup>2</sup> / <sub>32</sub>	12 <sup>1</sup> / <sub>32</sub>	14 <sup>1</sup> / <sub>32</sub>	71 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	4	299 <sup>1</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	185 <sup>1</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>4</sub>	141 <sup>3</sup> / <sub>16</sub>	63 <sup>1</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>16</sub>
TXT605	16 <sup>1</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>32</sub>	16 <sup>1</sup> / <sub>16</sub>	87 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	4	299 <sup>1</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>8</sub>	215 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	161 <sup>3</sup> / <sub>32</sub>	75 <sup>1</sup> / <sub>8</sub>	111 <sup>1</sup> / <sub>16</sub>	2
TXT705	18 <sup>1</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>16</sub>	81 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	4	299 <sup>1</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	251 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	182 <sup>3</sup> / <sub>32</sub>	87 <sup>1</sup> / <sub>4</sub>	141 <sup>1</sup> / <sub>16</sub>	2
TXT805	21 <sup>1</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>16</sub>	21	75 <sup>1</sup> / <sub>8</sub>	3/4	7	30	36	20 <sup>1</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>64</sub>	281 <sup>1</sup> / <sub>4</sub>	0	21 <sup>3</sup> / <sub>8</sub>	91 <sup>1</sup> / <sub>8</sub>	53 <sup>3</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>8</sub>
TXT905	23 <sup>1</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>16</sub>	22 <sup>5</sup> / <sub>64</sub>	91 <sup>2</sup> / <sub>2</sub>	3/4	71 <sup>3</sup> / <sub>32</sub>	30	36	22 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>32</sub>	311 <sup>1</sup> / <sub>16</sub>	0	23 <sup>3</sup> / <sub>8</sub>	87 <sup>1</sup> / <sub>8</sub>	75 <sup>3</sup> / <sub>64</sub>	3 <sup>1</sup> / <sub>8</sub>

**Note:** Bushings not included with reducer. When ordering bushings separately, see page G5-28.

♥ No bushings required for these bores. See page G5-28 for bore and keyseat information.

\* Pitch diameter of driven sheave should not be less than G to prevent overloading reducer bearings.

## Torque-Arm Vertical Straight Bore Speed Reducers



Torque-Arm Vertical reducers are available with the same advantages and at the same price as the standard Torque-Arm reducer except they are specially designed for vertical or inclined shaft applications. They are usable on such installations as agitators, mixers and many types of processing machinery. The input shaft of the reducer may be positioned up, as shown above, or turned over 180° in down position, whichever suits the application.

Information on standard reducers should be referred to for vertical reducers. The size number of both types is the same except for the "V" suffix added to the vertical type. The equivalent sizes of standard reducers are shown in the table. The following may be used as an index for information

applying to both the vertical and standard Torque-Arm reducers:

**Backstops**—page G5-31.

**Bores & Keyseats**—page G5-28.

**Bushings**—page G5-28.

**Dimensions**—pages G5-25 and G5-26.

**Ordering**—page G5-8.

**Overload Releases**—pages G5-38 and G5-39.

**Selection**—pages G5-8 thru G5-17.

**V-belt Drives**—section G8.

### Torque-Arm Vertical Straight Bore Speed Reducers

Vertical Reducer Size	Part Number	Wt.	Equivalent Standard Reducer	Vertical Reducer Size	Part Number	Wt.	Equivalent Standard Reducer	Vertical Reducer Size	Part Number	Wt.	Equivalent Standard Reducer
TXT115V	241075♣	39	TXT115	TXT615V	246160♣	215	TXT615	TXT105V	241088♣	37	TXT105
TXT125V	241076♣	39	TXT125	TXT625V	246161	215	TXT625	TXT205V	242254♣	47	TXT205
TXT215V	242092♣	47	TXT215	TXT715V	247170♣	380	TXT715	TXT305V	243380♣	69	TXT305
TXT225V	242093♣	47	TXT225	TXT725V	247171	380	TXT725	TXT405V	244352♣	88	TXT405
TXT315V	243360	80	TXT315	TXT815V	248285♣	600	TXT815	TXT505V	245380♣	145	TXT505
TXT325V	243361♣	80	TXT325	TXT825V	248286♣	600	TXT825	TXT605V	246383♣	200	TXT605
TXT415V	244135	98	TXT415	TXT915V	249275♣	650	TXT915	TXT705V	247288♣	340	TXT705
TXT425V	244136	98	TXT425	TXT926V	249276♣	650	TXT926	TXT805V	248278♣	450	TXT805
TXT515V	245512	151	TXT515	TXT1015V	272606♣	850	TXT1015	TXT905V	249268♣	560	TXT905
TXT525V	245513	151	TXT525	TXT1024V	272607♣	850	TXT1024	.....	.....	...	.....

♣ Made-to-order.

\* Consult factory when using a reducer input shaft down with a backstop.

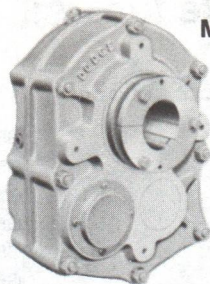


# Straight Bore Speed Reducer Bores and Bushing Assemblies

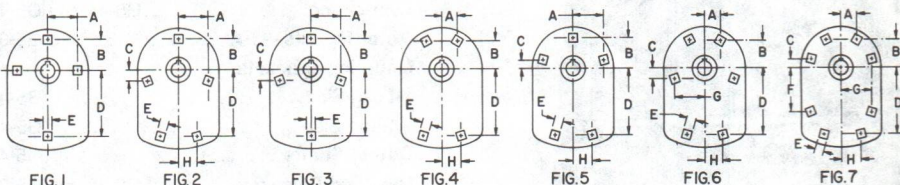
Reducer Size	Stock Bore	Shaft Keyseat Required†	Bushing Assemblies			Reducer Size	Stock Bore	Shaft Keyseat Required†	Bushing Assemblies		
			Size	Part No.	Wt.				Size	Part No.	Wt.
TXT109, TXT115, TXT125, TXT105, HXT115, HXT125, HXT105	1 7/16 ◆ 1 5/16 ▲ 1 1/4 ▲ 1 3/16 ▲ 1 1/8 ▲ 1 1/8 ▲ 1 1/8 ▲	3/8 x 3/16 x 2 5/16 x 5/32 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 1 3/4 1/4 x 1/8 x 2 1/4 x 1/8 x 2	..... TAXD1 TAXD1 TAXD1 TAXD1 TAXD1 TAXD1	241347 241346 241345 241344 241343 241342	..... .4 .6 .6 .6 .9 .9	TXT609, TXT615, TXT625, TXT605, HXT615, HXT625	3 7/16 ◆ 3 2 15/16 2 7/8 ▲ 2 11/16 ▲ 2 1/2 ▲ 2 1/4 ▲ 2 3/8 ▲	7/8 x 7/16 x 5 7/8 3/4 x 3/8 x 5 7/8 5/8 x 5/16 x 5 7/8 5/8 x 5/16 x 3 1/2 1/2 x 1/4 x 3 1/2 1 x 1/2 x 4 7/8 7/8 x 7/16 x 6 3/8	..... TAXD6 TAXD6 TAXD6 TAXD6 TAXD6 TAXD6 TAXD6	246427 246426 246425 246424 246423 246422 246421	..... 6.7 6.7 6.7 8.7 8.9 8.9 11.2
TXT209, TXT215, TXT225, TXT205, HXT215, HXT225, HXT205	1 15/16 ◆ 1 3/4 1 11/16 1 9/8 1 1/2 ▲ 1 7/8 ▲ 1 3/8 ▲ 1 3/8 ▲ 1 1/4 ▲ 1 3/8 ▲ 1 1/8 ▲	1/2 x 1/4 x 2 1/2 3/8 x 3/16 x 2 7/8 3/8 x 3/16 x 2 1/2 5/16 x 5/32 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 2 1/4 x 1/8 x 2	..... TAXD2 TAXD2 TAXD2 TAXD2 TAXD2 TAXD2 TAXD2 TAXD2 TAXD2 TAXD2 TAXD2	242351 242350 242349 242348 242347 242346 242345 242344 242343 242342 242341	1.1 1.1 1.1 1.6 1.6 1.7 1.7 2.0 2.0 2.0 2.3	TXT709, TXT715, TXT725, HXT705, HXT715, HXT725	3 15/16 ◆ 3 7/16 3 3/16 ▲ 3 ▲ 2 9/16 ▲ 2 1/2 ▲ 2 1/8 ▲ 2 1/8 ▲ 2 1/8 ▲ 2 1/8 ▲ 2 1/8 ▲	1 x 1/2 x 4 7/8 7/8 x 7/16 x 6 3/8 3/4 x 3/8 x 6 3/8 3/4 x 3/8 x 4 7/8 3/4 x 3/8 x 3 1/2 5/8 x 5/16 x 3 1/2 1 x 1/2 x 6 7/8 1 x 1/2 x 6 7/8 1 x 1/2 x 6 7/8 7/8 x 7/16 x 6 7/8 3/4 x 3/8 x 4 3/8	..... TAXD7 TAXD7 TAXD7 TAXD7 TAXD7 TAXD7 TAXD8 TAXD8 TAXD8 TAXD8 TAXD8	247428 247427 247426 247425 247424 247423 247422 247421 247420 248424 248423 248422 248421 248420	..... 8.5 12.6 12.6 13.1 13.1 10.5 13.0 13.0 13.0 11.4 22.0 27.0 27.0
TXT309, TXT315, TXT325, TXT305, HXT315, HXT325, HXT305	2 1 15/16 1 7/8 1 3/4 ▲ 1 11/16 ▲ 1 5/8 ▲ 1 1/2 ▲ 1 7/8 ▲ 1 3/8 1 3/8 1 15/16	1/2 x 1/4 x 3 5/8 3/8 x 3/16 x 3 1/4 3/8 x 3/16 x 2 1/4 5/16 x 5/32 x 2 1/4 1/2 x 1/4 x 3 5/8 1/2 x 1/4 x 3 5/8 1/2 x 1/4 x 3 5/8 1/2 x 1/4 x 3 5/8 1/2 x 1/4 x 3 5/8 1/2 x 1/4 x 3 5/8 1/2 x 1/4 x 3 5/8	..... TAXD3 TAXD3 TAXD3 TAXD3 TAXD3 TAXD3 TAXD3 TAXD3 TAXD3 TAXD3 TAXD3	243429 243428 243427 243426 243425 243424 243423 243422 243421 243420 243420	1.2 1.3 2.1 2.2 2.2 2.0 2.0 2.0 3.0 3.0 3.0	TXT815, TXT825, TXT805	4 7/16 ◆ 4 3/16 3 9/16 3 7/16 ▲ 3 3/16 ▲ 3 1/16 ▲ 3 1/16 ▲ 3 1/16 ▲ 3 1/16 ▲ 3 1/16 ▲ 3 1/16 ▲	1 x 1/2 x 6 7/8 1 x 1/2 x 6 7/8 7/8 x 7/16 x 6 7/8 3/4 x 3/8 x 4 3/8 1 1/4 x 5/8 x 11 3/8 1 x 1/2 x 11 3/8 7/8 x 7/16 x 5 1 1/4 x 5/8 x 12 3/8 1 1/4 x 5/8 x 12 3/8 1 x 1/2 x 12 3/8 1 x 1/2 x 6 5/8	..... TAXD8 TAXD8 TAXD8 TAXD8 TAXD9 TAXD9 TAXD9 TAXD10 TAXD10 TAXD10 TAXD10	248424 248423 248422 248421 248420 249422 249421 249420 250422 250421 250420	..... 6.0 11.4 22.0 27.0 27.0 15.0 26.0 28.0 18.4 35.0 33.0
TXT409, TXT415, TXT425, TXT405, HXT415, HXT425, HXT405	2 1 15/16 ▲ 1 7/8 ▲ 1 3/4 ▲ 1 11/16 ▲ 1 5/8 ▲ 1 1/2 ▲ 1 7/8 ▲ 1 3/8 1 3/8 1 15/16	1/2 x 1/4 x 4 3/8 x 3/16 x 2 7/8 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3	..... TAXD4 TAXD4 TAXD4 TAXD4 TAXD4 TAXD4 TAXD4 TAXD4 TAXD4 TAXD4 TAXD4	244427 244426 244425 244424 244423 244422 244421 244420 244420 244420 244420	3.5 3.5 3.5 3.4 3.4 4.1 4.1 4.1 4.1 4.1 4.1	TXT509, TXT515, TXT525, TXT505, HXT515, HXT525, HXT505	2 15/16 ◆ 2 11/16 2 1/2 ▲ 2 7/8 ▲ 2 1/4 ▲ 2 1/4 ▲ 2 1/4 ▲ 2 1/4 ▲ 2 1/4 ▲ 2 1/4 ▲ 2 1/4 ▲	3/4 x 3/8 x 4 3/8 5/8 x 5/16 x 4 3/8 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3 1/2 x 1/4 x 3	..... TAXD5 TAXD5 TAXD5 TAXD5 TAXD5 TAXD5 TAXD5 TAXD5 TAXD5 TAXD5 TAXD5	245428 245427 245426 245425 245424 245423 245422 245421 245421 245421 245421	2.45 4.3 4.3 5.6 5.6 5.6 5.6 5.6 5.6 5.6 5.6

† Shaft key furnished. (Key may be located at either end of bore.)  
 ◆ Preferred bore. No bushing required for these bore sizes.  
 ▲ Check the Driven Shaft and Key for strength.  
 Note: Consult factory for bores not listed.

# Torque-Arm Speed Reducer Flange Mounting Pads and Clearance Dimensions



The standard line of Torque-Arm speed reducers has mounting pads on the back of the housing that can be drilled and tapped by the user to permit bolting the reducer to a supporting framework. It is important that the full depth of the tap not exceed the depth shown in the table below because of breaking into the housing. If machining facilities are not available, Dodge will drill and tap pads at no additional charge. See page G5-43 or consult factory for allowable overhung shaft loads.

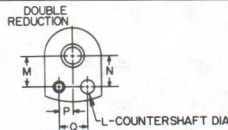
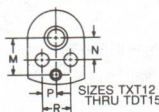
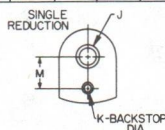


**Table 6—Dimensions for Flange Mounting Pads**

Reducer Size	Nominal Ratio	Reference	A	B	C	D	E	F	G	H	Tap Size	Tap Drill Depth	Tap Depth
TX1	5, 9, 15, 25	Fig. 1	2 13/16	3	...	5 1/2	7/8	...	...	...	7/16-14	29/32	1 1/2
TX2	9, 15, 25	Fig. 1	3 3/8	3 3/8	...	5 7/8	1 1/4	...	...	...	7/16-14	7/8	1 1/2
TX3	5	Fig. 2	3 3/8	3 3/8	...	4 7/8	7/8	...	...	2 17/32	7/16-14	7/8	1 1/2
TX3	9, 15, 25	Fig. 3	3 3/8	3 3/8	7/8	4 7/8	1 1/4	...	...	...	1/2-13	1	5/8
TX3	5	Fig. 2	3 3/8	3 3/8	1	5 19/32	3/4	...	...	2 11/16	1/2-13	29/32	1 1/2
TX4	5, 9, 15, 25	Fig. 3	3 3/8	3 3/8	2	7 5/8	1	...	...	...	1/2-13	1	5/8
TX5	9, 15, 25	Fig. 3	4 5/8	4 5/8	2 29/32	9 1/2	1 1/4	...	...	...	5/8-11	7/8	7/16
TX5	5	Fig. 3	4 5/8	4 5/8	2 29/32	9 1/4	1 1/4	...	...	...	5/8-11	7/8	7/16
TX6	5, 9, 15, 25	Fig. 3	6 1/8	5 1/8	2 3/4	11	1 7/8	...	...	...	5/8-11	1 1/8	1 1/16
TX7	5, 9, 15, 25	Fig. 3	5 5/8	6 1/4	2 15/16	13 1/4	2	...	...	...	3/4-10	13/16	7/8
TX8	5, 15, 25	Fig. 3	6 5/8	7	3	15 1/16	2	...	...	...	3/4-10	1 1/2	27/32
TX9	15, 26	Fig. 4	5 7/8	5 15/16	...	16 7/8	2	...	...	3 3/8	3/4-10	1 1/2	1 3/2
TX9	5	Fig. 5	8 1/8	8 1/8	5/8	13 7/8	2	...	...	7 19/16	3/4-10	1 1/2	15/16
TX10	15, 24	Fig. 6	5 13/16	7 15/16	3 1/2	19 1/2	2	...	9 13/16	3 3/8	3/4-10	1 7/32	23/32
TX12	15, 25	Fig. 6	6 1/8	10 3/4	7 1/4	22 11/16	2 1/2	...	12 9/16	9 1/4	3/4-10	1 25/32	1 9/32
DT13	25	Fig. 6	7 7/16	12 3/4	6 1/2	25 3/4	2 1/2	...	15 3/4	7 5/16	1-8	2 3/8	13/4
DT14	25	Fig. 7	8 1/4	12 3/4	1 1/4	28 1/4	2 1/2	16 3/4	18 1/16	8 1/4	1-8	2 3/8	2
DT15	30	Fig. 7	11	15 1/8	1 1/4	32 3/8	3 1/2	19 3/8	22	11	1-8	2 3/8	2

**Table 6A—Flange Mounting Clearance Dimensions**

Reducer Size	Nominal Ratio	J	K	L	M	N	P	Q	R	Reducer Size	Nominal Ratio	J	K	L	M	N	P	Q	R
TX1	9, 15, 25	3/4	29/16	...	3 3/16	3 3/16	1 29/32	2 17/32	...	TX7	9, 15, 25	9/16	5 1/16	...	8 5/16	8 5/16	5/16	6 3/4	...
TX1	5	3/4	2 13/16	...	3/4	...	...	...	...	TX7	5	9/16	5 1/16	...	8 5/16	...	...	...	...
TX12	9, 15, 25	4 1/16	3 1/2	...	3 3/4	3 3/4	2 1/8	3	...	TX8	15, 25	9/16	7/8	6	9 1/2	9 1/2	6 1/32	7 23/32	...
TX2	5	4 1/16	3 1/2	...	3 3/8	...	...	...	...	TX8	5	9/16	7 1/2	...	9 1/4	...	...	...	...
TX3	9, 15, 25	4 3/8	3 1/2	...	4 3/16	4 3/16	2 3/8	3 3/16	...	TX9	15, 26	10 15/16	8	8	10 19/16	10 19/16	6 1/32	8 5/8	...
TX3	5	4 3/8	3 1/2	...	4 1/4	...	...	...	...	TX9	5	10 15/16	8	...	10 19/16	...	...	...	...
TX4	9, 15, 25	4 3/16	3 3/8	...	4 29/32	4 29/32	2 3/4	3 11/16	...	TX10	15, 24	12 1/4	8	7 7/8	12 1/2	12 1/2	6 9/16	8 23/32	...
TX4	5	4 3/16	4 1/16	...	4 7/8	...	...	...	...	TX12	15, 25	14 1/4	8 5/8	9	22 29/64	13 3/32	5 1/8	...	11 1/8
TX5	9, 15, 25	5 1/4	4 1/4	...	5 11/16	5 21/32	3 1/8	4 9/16	...	TD13	25	15 5/8	8 5/8	10 1/4	24 27/64	14 15/32	6 9/16	...	12 5/8
TX5	5	5 5/8	4 3/4	...	5 7/8	...	...	...	...	TD14	25	17 5/8	10 3/4	11 3/4	26 9/32	15 5/16	7 1/8	...	14 1/4
TX6	9, 15, 25	8 5/8	5 1/16	...	6 3/4	6 29/32	4 3/8	5 5/8	...	TD15	30	22 1/2	10 3/4	13 1/2	30 9/16	18 1/8	8	...	16
TX6	5	8 5/8	5 1/16	...	6 7/8	...	...	...	...										

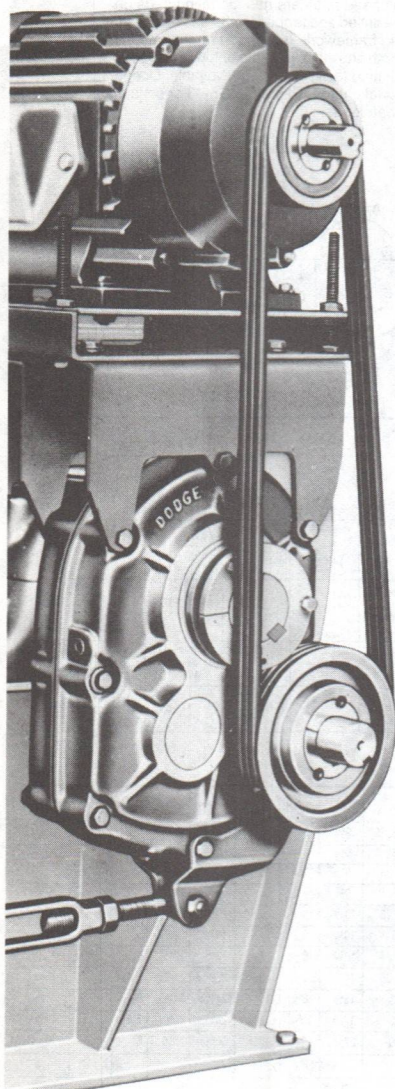




# TORQUE-ARM™ Speed Reducers:

## ACCESSORIES

Air Breathers .....	G5-31
Auxiliary Seals .....	G5-41
Backstops .....	G5-31
Belt Guards .....	G5-36 and G5-37
Cooling Fans .....	G5-40
Heat Exchangers .....	G5-40
Lubrication .....	G5-44 and G5-45
Motor Mounts—T-A .....	G5-32 Thru G5-35
Mounting Brackets	
Long Side .....	G5-42
Short Side .....	G5-42
Output Shafts .....	G5-43
Overload Releases .....	G5-38 and G5-39



Note: Guards have been removed for photographic purposes.

## Backstop Assemblies

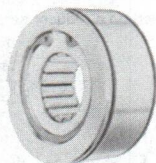
Optional backstops are offered for service conditions that require the prevention of reverse direction. They can be quickly installed by removing cover plate and slipping the backstop over the input shaft. After cover is replaced, backstop becomes completely sealed inside the reducer case. Since reducer lubricates the backstop, no additional lubrication is required.

When ordering backstops, specify by reducer size. They are priced separately. Keys are included.

### Backstop Assemblies

Reducer Size	Nominal Ratio	Part Number	Weight
TXT1	5, 9, 15, 25	242101	.60
TXT2	5, 9, 15, 25	252101	1
TXT3	9, 15, 25	243102	1.2
TXT3	5	252101	1
TXT4	5, 9, 15, 25	244148	.90
TXT5	9, 15, 25	245154	2.2
TXT5	5	246101	1.8
TXT6	5, 9, 15, 25	246092	2.5
TXT7	5, 9, 15, 25	247260	2.8
TXT8	15, 25	249260	3.8
TXT8	5	250260	5.6
TXT9	15, 26	249260	3.8
TXT9	5	272259	6.7
TXT10	15, 24	250260	5.6
TXT12	15, 25	250260	5.6
TDT13	25	272259	6.7
TDT14	25	272293	13.4
TDT15	30	272293	13.4

**Warning:** Backstops are not recommended for applications involving energy absorption and shock or torque loads in excess of reducer ratings or on applications such as chair lifts, amusement rides, etc., where the safety of persons or property is dependent on their function. On such applications, other safety devices should be provided.



## Air Breathers for Torque-Arm Speed Reducers



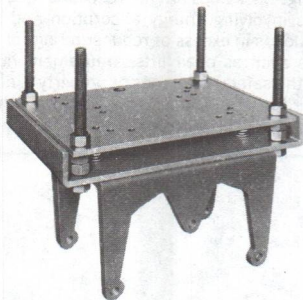
### Air Breathers

Reducer Size	Part Number	Plug Dimensions
TXT1 to TXT4	430048	3/8—18 NPSF
TXT5 to TXT10	430049	1/2—14 NPSF

\*Fits all ratios

Air Breathers are designed for use in dusty atmospheres where the standard Torque-Arm breather may become clogged and inoperative. They allow the reducer to breathe, yet keep dust out under the most extreme conditions. Clean oil is necessary for proper service and long gear and bearing life. Breathers may be used in all reducers and screw conveyor drives. When ordering, specify reducer size.





## T-A Motor Mounts for Torque-Arm Speed Reducers (Sizes 1 thru 7)

The T-A Motor Mount is a rugged all steel unit which requires no drilling and no foundation. It bolts directly to the top of the Torque-Arm reducer which can be located in any position around the shaft. It permits easy belt tensioning.

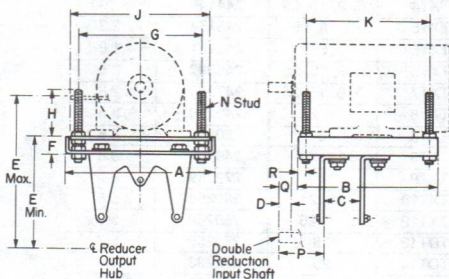
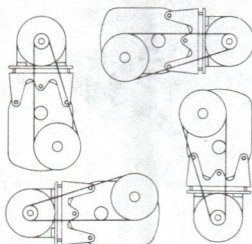
Each motor mount accommodates a wide variety of NEMA motor frames—see table below.

A reducer backstop may be used if desired to prevent reversal of direction; however, the use of an overload release is not acceptable.

Bolt hole configuration will also allow this mount to fasten to the top of a Screw Conveyor Drive reducer of equivalent size.

For motor mount installed on a reducer see page G5-30.

MOUNT  
MOTOR  
AT ANY  
POINT  
AROUND  
DRIVE  
SHAFT



### T-A Motor Mounts

Motor Mount No.	Part Number	Wt.	Reducer Size	Nominal Ratio	To Accommodate NEMA Motor Frame Sizes*	A	B	C Nom.	D	E▲		F	G	H
										Min.	Max.			
TA1M	241391	37	TXT1	5, 9, 15, 25	56 thru 215	14 5/8	11	3 1/8	1 15/16	10 1/64	13 11/16	1 19/32	12	4 59/64
			TXT2	5, 9, 15, 25	56 thru 215	14 5/8	11	4 1/4	2 23/32	10 19/32	14 17/64	1 19/32	12	4 59/64
TA3M	243391	40	TXT3	5, 9, 15, 25	56 thru 215	14 5/8	11	4 1/4	2 23/32	11 19/32	16 5/8	1 19/32	12	4 59/64
TA4M	244391	75	TXT4	5, 9, 15, 25	143 thru 286	18 5/8	17	4 3/8	2 29/32	11 31/32	17 1/32	1 25/32	15 1/2	5 37/64
TA5M	245391	76	TXT5	5, 9, 15, 25	143 thru 286	18 5/8	17	4 1/2	2 5/8	12 17/32	17 19/32	1 25/32	15 1/2	5 37/64
TA6M	246391	99	TXT6	5, 9, 15, 25	143 thru 326	20 1/2	18 1/2	4 1/2	2 9/16	14 9/16	21 23/32	1 27/32	17 1/2	5 33/64
TA7M	247395	110	TXT7	5, 9, 15, 25	143 thru 365	22 1/2	19	4 3/4	2 3/4	16 31/32	21 29/32	1 27/32	19 1/4	5 33/64

Motor Mount No.	J	K	N-Stud		P	Q	R
			Dia.	Lgth.			
TA1M	13 1/2	9 1/4	5/8	7	4 1/32	2 29/64	7/8
TA3M	13 1/2	9 1/4	5/8	7	4 1/16	2 29/64	7/8
TA4M	13 1/2	14 1/4	3/4	8	5 9/16	2 19/32	1
TA5M	17 1/2	14 1/4	3/4	8	6 11/16	3 29/32	1
TA6M	17 1/2	16 1/2	3/4	8	7 9/16	4 1/8	1
TA7M	19 1/4	16 1/2	3/4	8	7 13/16	4 61/64	1

**Note:** Necessary mounting bolts are included.

For clearance dimensions,

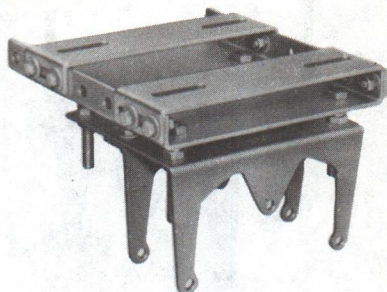
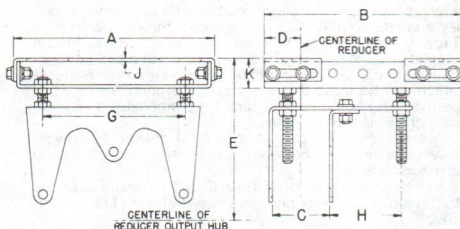
see Table 9 page G5-35.

• Select motor size to suit horsepower requirements. See page Table 7, for V-Belt drive center distances.

▲ Provides for V-belt adjustment.

## T-A Motor Mounts (Cont.)

(Sizes 8 thru 15)



### Motor Mounts

For motor mount installed on a reducer see page G5-30.

Motor Mount No.	Part Number	Wt.	Reducer Size	Nominal Ratio	To Accommodate NEMA Motor Frame Sizes*	A	B	C Nom.	D	E A		G	H	J	K
										Min.	Max.				
8	248401	119	TXT8	15, 25	213 thru 365	18 <sup>9</sup> / <sub>16</sub>	19	5 <sup>1</sup> / <sub>4</sub>	3	19 <sup>5</sup> / <sub>16</sub>	23 <sup>1</sup> / <sub>16</sub>	11	4 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
9	249401	120	TXT9	15, 26	213 thru 365	18 <sup>9</sup> / <sub>16</sub>	19	5 <sup>1</sup> / <sub>4</sub>	3	20 <sup>1</sup> / <sub>32</sub>	24 <sup>7</sup> / <sub>8</sub>	11	4 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
10	250401	130	TXT10	15, 24	254 thru 365	18 <sup>9</sup> / <sub>16</sub>	19	6	3 <sup>3</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>32</sub>	26 <sup>2</sup> / <sub>32</sub>	11	3 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
10	250404	250			404 thru 445	25	24	6	5 <sup>1</sup> / <sub>2</sub>	22 <sup>1</sup> / <sub>16</sub>	26 <sup>1</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>2</sub>	3 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub>
12	272310	255	TXT12	15, 25	286 thru 445	25	24	7 <sup>5</sup> / <sub>8</sub>	6	25 <sup>2</sup> / <sub>32</sub>	31 <sup>3</sup> / <sub>32</sub>	18 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub>
13	272313	290	TDT13	25	324 thru 445	25	24	8 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	25 <sup>2</sup> / <sub>32</sub>	31 <sup>3</sup> / <sub>32</sub>	18 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub>
14	272318	295	TDT14	25	324 thru 445	25	24	10	8 <sup>3</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>16</sub>	31 <sup>1</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub>
15	272392	320	TDT15	30	405 thru 445	25	24	12 <sup>5</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>8</sub>	33 <sup>1</sup> / <sub>2</sub>	39 <sup>1</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub>

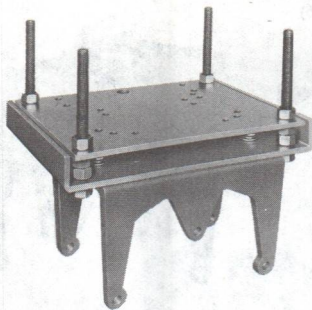
\* Necessary mounting bolts are included.  
Provides for V-belt adjustment.  
Made-to-order.

\* Select motor size to suit horsepower requirements. See page G5-33, table 7, for V-belt drive center distances.

### Table 7—V-Belt Drive Center Distances for T-A Motor Mounts

Motor Mount No.		Reducer Size	Nominal Ratio	Center Distances for Various NEMA Motor Frames																	
				56		143T, 145T		182, 182T 184, 184T		213, 213T 215, 215T		254U, 254T 256U, 256T		284U, 284T 286U, 286T		324U, 324T 326U, 326T		364T 365T			
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.				
1M	TXT1	5, 9, 15, 25	17.8	21.3	17.8	21.3	18.8	22.3	19.6	23.1	...	...	...	...	...	...	...	...			
	TXT2	5, 9, 15, 25	19.0	22.5	19.0	22.5	20.0	23.5	20.7	24.2	...	...	...	...	...	...	...	...			
3M	TXT3	5, 9, 15, 25	20.4	23.9	20.4	23.9	21.4	24.9	22.2	25.7	...	...	...	...	...	...	...	...			
4M	TXT4	5, 9, 15, 25	...	...	21.5	26.0	22.5	27.0	23.2	27.7	24.2	28.7	...	...	...	...	...	...			
5M	TXT5	5, 9, 15, 25	...	...	23.0	27.5	24.0	28.5	24.8	29.3	25.8	30.3	...	...	...	...	...	...			
6M	TXT6	5, 9, 15, 25	...	...	26.3	30.8	27.3	31.8	28.0	32.5	29.0	33.5	29.7	34.2	30.6	35.1	...	...			
7M	TXT7	9, 15, 25	...	...	30.9	35.4	31.9	36.4	32.7	37.2	33.6	38.1	34.4	38.9	35.4	40.0	34.3	38.8			
	TXT7	5	...	...	30.9	35.4	31.9	36.4	32.7	37.2	33.6	38.1	34.4	38.9	35.4	40.0	34.7	39.2			
Motor Mount No.		Reducer Size	Nominal Ratio	Center Distances for Various NEMA Motor Frames																	
				213, 213T 215, 215T		254U, 254T 256U, 256T		284U, 284T 286U, 286T		324U, 324T 326U, 326T		364U, 364T 365U, 365T		404U, 404T 405U, 405T		444U, 444T 445U, 445T					
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.				
8A	TXT8	15, 25	36.5	40.9	37.5	42.0	38.3	42.6	39.3	43.6	40.2	44.6	...	...	...	...	...	...			
		5	...	...	37.2	41.5	37.9	42.3	38.9	43.3	39.9	44.3	...	...	...	...	...	...			
9A	TXT9	15, 25	39.1	43.5	40.1	44.5	40.9	45.2	41.8	46.2	42.8	47.2	...	...	...	...	...	...			
		5	...	...	...	...	40.5	44.8	41.5	45.8	42.5	46.8	...	...	...	...	...	...			
A10	TXT10	15, 24	...	...	43.7	48.1	44.4	48.8	45.4	49.8	46.4	50.8	46.7	51.0	47.7	51.4					
A12	TXT12	15, 25	...	...	...	...	...	...	58.1	63.6	59.2	64.6	60.2	65.6	61.2	66.6					
A13	TDT13	25	...	...	...	...	...	...	59.7	65.1	60.7	66.1	61.7	67.1	62.7	68.1					
A14	TDT14	25	...	...	...	...	...	...	61.7	67.1	62.7	68.1	63.7	69.1	64.7	70.1					
A15	TDT15	30	...	...	...	...	...	...	...	...	...	...	75.0	80.5	76.0	81.5					





## T-A Long Motor Mounts for Torque-Arm Speed Reducers (Sizes 3 Thru 7)

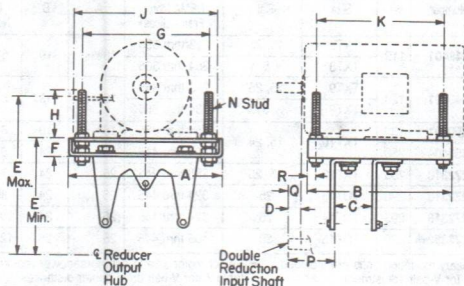
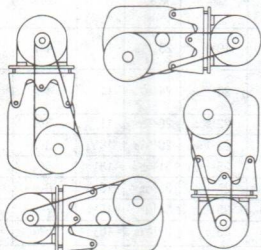
The TAML Series Motor Mount has longer support brackets, which allows for more clearance between the conveyor pulley and the bottom plate of the motor mount. (Reference Table 9 for clearance dimensions). The motor mount is a rugged all steel unit which requires no drilling and no foundation. It bolts directly to the top of the Torque-Arm Reducer which can be located in any position around the shaft. It permits easy belt tensioning and accommodates a wide variety of NEMA motor frames.

A reducer backstop may be used if desired to prevent reversal of direction; however, the use of an overload release is not acceptable.

Bolt hole configuration will also allow this mount to fasten to the top of a Screw Conveyor Drive Reducer of equivalent size.

For motor mount installed on a reducer see page G5-30.

MOUNT  
MOTOR  
AT ANY  
POINT  
AROUND  
DRIVE  
SHAFT



## T-A Long Motor Mounts

Motor Mount No.	Part Number	Wt.	Reducer Size	Nominal Ratios	To Accommodate NEMA Motor Frame Sizes *	E▲								
						A	B	C Nom.	D	Min.	Max.	F	G	H
TA3ML	243392	42	TX3	5, 9, 15, 25	143 thru 215	13½	11	4¼	2 <sup>23</sup> / <sub>32</sub>	14 <sup>19</sup> / <sub>32</sub>	18 <sup>3</sup> / <sub>32</sub>	11 <sup>9</sup> / <sub>32</sub>	12	4 <sup>5</sup> / <sub>64</sub>
TA4ML	244392	75	TX4	5, 9, 15, 25	143 thru 286	17½	17	4½	2 <sup>29</sup> / <sub>32</sub>	16 <sup>15</sup> / <sub>32</sub>	20 <sup>31</sup> / <sub>32</sub>	12 <sup>25</sup> / <sub>32</sub>	15½	5 <sup>37</sup> / <sub>64</sub>
TA5ML	245392	75	TX5	5, 9, 15, 25	143 thru 286	17½	17	4½	2½	19 <sup>9</sup> / <sub>32</sub>	23 <sup>25</sup> / <sub>32</sub>	12 <sup>25</sup> / <sub>32</sub>	15½	5 <sup>37</sup> / <sub>64</sub>
TA6ML	246390	100	TX6	5, 9, 15, 25	143 thru 326	19¼	18½	4½	2 <sup>9</sup> / <sub>16</sub>	28 <sup>9</sup> / <sub>16</sub>	33 <sup>1</sup> / <sub>16</sub>	12 <sup>27</sup> / <sub>32</sub>	17½	5 <sup>33</sup> / <sub>64</sub>
TA7ML	247396	100	TX7	5, 9, 15, 25	143 thru 326	19¼	18½	4¾	2¾	32 <sup>15</sup> / <sub>32</sub>	36 <sup>31</sup> / <sub>32</sub>	12 <sup>27</sup> / <sub>32</sub>	17½	5 <sup>33</sup> / <sub>64</sub>

Motor Mount No.	J	K	N-Stud		P	R
			Dia.	Lgth.		
TA3ML	13 1/2	9 1/4	3/8	7	47/16	7/8
TA4ML	17 1/2	14 1/4	3/4	8	53/16	1
TA5ML	17 1/2	14 1/4	3/4	8	61 1/16	1
TA6ML	19 1/4	16 1/2	3/4	8	75 1/16	1
TA7ML	19 1/4	16 1/2	3/4	8	71 9/16	1

Note: Necessary mounting bolts are included.

For clearance dimensions, see page G5-35.

\* Select motor size to suit horsepower requirements. See page G5-35.

Table 8 for V-Belt drive center distances.

▲ Provides for V-belt adjustment.

Size 8L-122 available upon request.

## T-A Long Motor Mounts (Cont.)

(Sizes 3 thru 7)

**Table 8—V-Belt Drive Center Distances for T-AL Motor Mounts**

Motor Mount No.	Reducer Size	Nominal Ratio	Center Distances for Various NEMA Motor Frames											
			143T, 145T		182, 182T 148, 184T		213, 213T 215, 215T		254U, 254T 256U, 256T		284U, 284T 286U, 286T		324U, 324T 326U, 326T	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
TA3ML	TXT3	5, 9, 15, 25	23.4	26.9	24.4	27.9	25.1	28.6	...	...	...	...	...	...
TA4ML	TXT4	5, 9, 15, 25	25.9	30.4	26.9	31.4	27.7	32.2	28.7	33.2	29.4	33.9	...	...
TA5ML	TXT5	5, 9, 15, 25	29.7	34.2	30.7	35.2	31.4	35.9	32.4	36.9	33.1	37.7	...	...
TA6ML	TXT6	5, 9, 15, 25	...	...	41.1	45.6	41.8	46.3	42.8	47.3	43.5	48.0	44.5	49.0
TA7ML	TXT7	5, 9, 15, 25	...	...	47.3	51.8	48.1	52.5	49.0	53.5	49.8	54.3	50.8	55.3

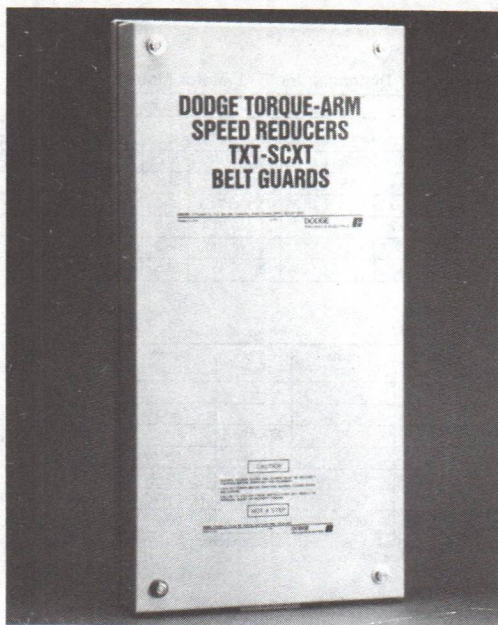
**Table 9—Clearance Dimensions**

Reducer	Nominal Ratio	Motor Mount	Clearance Dimension (1)	Motor Mount	Clearance Dimension (1)
TXT1	5, 9, 15, 25	TA1M	7 <sup>5</sup> / <sub>8</sub> "	—	—
TXT2	5, 9, 15, 25	TA1M	8 <sup>1</sup> / <sub>4</sub> "	—	—
TXT3	5, 9, 15, 25	TA3M	9 <sup>1</sup> / <sub>4</sub> "	TA3ML	12 <sup>1</sup> / <sub>4</sub> "
TXT4	5, 9, 15, 25	TA4M	9 <sup>7</sup> / <sub>16</sub> "	TA4ML	13 <sup>1</sup> / <sub>16</sub> "
TXT5	5, 9, 15, 25	TA5M	10"	TA5ML	16 <sup>3</sup> / <sub>4</sub> "
TXT6	5, 9, 15, 25	TA6M	11 <sup>3</sup> / <sub>32</sub> "	TA6ML	25 <sup>3</sup> / <sub>32</sub> "
TXT7	5, 9, 15, 25	TA7M	14 <sup>3</sup> / <sub>8</sub> "	TA7ML	29 <sup>7</sup> / <sub>8</sub> "

(1) Distance from Centerline of Head Shaft (Reducer Bore) and Lowest Component of Motor Mount Hardware Extending Over Top Conveyor.



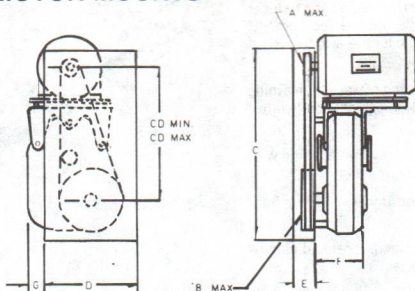
# DODGE® TORQUE-ARM BELT GUARDS



A belt guard with mounting straps for TXT and SCXT Reducers will fit standard TA or SCD M series motor mounts. The belt guards are designed to fit most common sheave diameters. They mount easily with no machining required.

# EDGE TORQUE-ARM

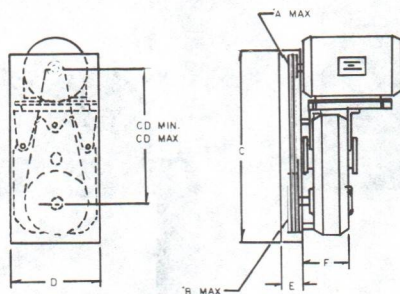
## TOTALLY ENCLOSED BELT GUARDS FOR TORQUE-ARM REDUCERS WITH STANDARD TA MOTOR MOUNTS



T Double Reduction With Belt Guard Dimensions

Motor Mount Size	Belt Guard Size†	Motor Frame	CD	CD	Max. A	Max. B	C	D	E	F	G	Part Number
			Min.	Max.								
TA1M	TXT1-D	143T/184T	17	22	5	12	32	13	3½	6	—	241325
TA2M	TXT2-D	143T/184T	18	23	6	12	34	15	4	6	—	242325
TA3M	TXT3-D	143/215	19.2	24.7	7	14	37	17	4	7¼	—	243325
TA4M	TXT4-D	143/286	20.9	28.9	7	15	42	18	4½	8⅞	—	244325
TA5M	TXT5-D	143/286	22.3	30.4	7	15	45	18	5¼	8⅞	5/8	245325
TA6M	TXT6-D	143/326	26.5	34.4	8	18	50	20	6	10	1½	246325
TA7M	TXT7-D	143/326	30.6	38.5	10	20	56	23	6	10⅞	1/2	247326
TA8	TXT8-D	213/365	34.8	42.9	12	25	63	27	6½	11⅞	5/32	248324
TA9	TXT9-D	213/365	37.4	45.5	12	25	66	30	9	11½	2²⁹/₃₂	249325
TA10	TXT10-D	254/365	41.9	49.1	12	25	70	30	9	12⅞	4⁹/₁₆	250325

15 & 25:1 Ratios.



T Single Reduction With Belt Guard Dimensions

Motor Mount Size	Belt Guard Size†	Motor Frame	CD	CD	Max. A	Max. B	C	D	E	F	G	Part Number
			Min.	Max.								
TA1M	TXT1-S	143T/184T	17	22	5	12	32	13	3½	6	—	241328
TA2M	TXT2-S	143T/184T	18	23	6	13	34	15	4	6	—	242328
TA3M	TXT3-S	143T/215T	19.2	24.7	7	15	37	17	4	7¼	—	243324
TA4M	TXT4-S	143T/286T	20.9	28.9	8	16	43	18	4½	8⅞	—	244326
TA5M	TXT5-S	143T/286T	22.3	30.4	8	16	45	18	5¼	8⅞	—	245326
TA6M	TXT6-S	143T/326T	26.5	34.4	10	18	50	20	6	10	—	246339
TA7M	TXT7-S	143T/326T	32.0	38.2	10	25	58	27	6	10⅞	—	247326
TA8	TXT8-S	213T/365T	35.3	42.6	13	30	66	32	6½	11⅞	—	248323
TA9	TXT9-S	213T/365T	38.7	45.1	13	30	69	32	9	11½	—	249326

5:1 Ratio



## TRI-MATIC Overload Releases for Torque-Arm Speed Reducers

The TRI-MATIC Overload Release is a simple and inexpensive device for protecting driven machines, motors and the reducer itself against shock and overload. It is optional equipment, interchangeable with the lower half of the torque-arm furnished with every Torque-Arm speed reducer.

Basically it loosens the belts and cuts the power which avoids expensive repairs, and ensures protection against costly interruptions.

The limit switch is fully enclosed in a gray iron housing with tight fitting gray iron cover. Other parts are steel.

For outdoor or dusty applications, additional shielding from the elements should be provided.

The TRI-MATIC Release offers both mechanical and electrical protection without any undue time lag.

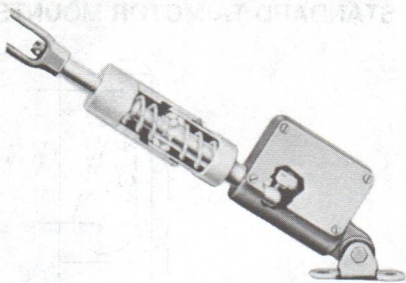
**Operation**—Pressure exerted by an excessive load causes a piston to move lengthwise through the unit, activating the mechanism instantly.

This movement loosens the belts and cuts off current simultaneously.

A warning system can be hooked up to the limit switch of the Tri-Matic Release—to activate a bell, siren or light.

The TRI-MATIC Release is calibrated for adjustment to the load conditions of any job. It can be set to act at any desired load up to the reducer's maximum capacity.

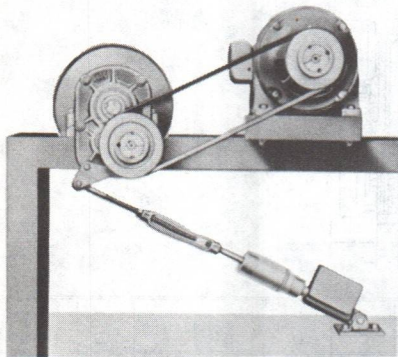
The TRI-MATIC Release is easy to reset. Just pull the speed reducer back into position. This automatically cocks the release mechanism. If a backstop is also used, pull the reducer back



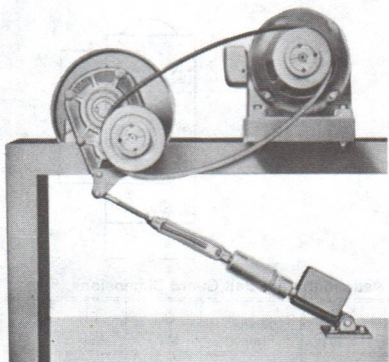
into position against any weight which may be held or the weight can first be relieved.

The TRI-MATIC Release is not recommended for installations using a T-A Motor Mount bolted to the reducer.

**Switch Rating**—The switch used in the release is a (SPDT) single pole double throw switch. It is listed by Underwriters' Laboratories for 10A—125/250 VAC. This switch is not recommended for d-c circuits. It is recommended that the normally closed switch be used in the circuit to stop the motor and the normally open switch be used for operating the motor. It is intended for use only in control circuits and is not acceptable for use directly in the line to the motor.



**Set**—Overload Release is set, belts are tight, speed reducer in operating position ready to go. (Overload release is interchangeable with lower half of standard torque-arm.)



**Tripped**—Overload pressure has caused piston of overload release to plunge length-wise through the unit: loosening belts, cutting off power, setting off alarm.

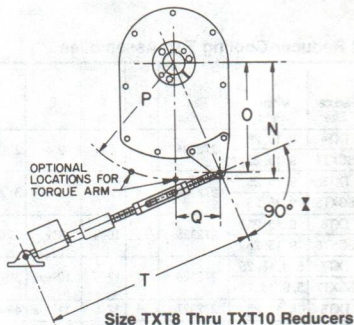
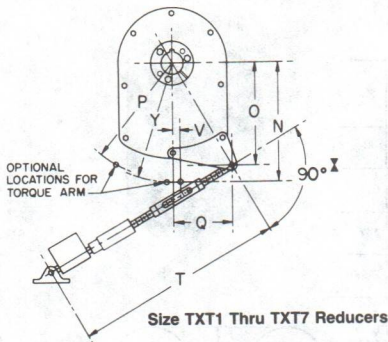
## TRI-MATIC Overload Releases for Torque-Arm Speed Reducers

Weights are for releases only. Release replaces one rod from the standard torque-arm, furnished with the reducer. Other dimensions are on pages G5-18 thru G5-21, G5-24 and G5-26.

Reducer and torque-arm mounting positions are described

on page G5-18. Torque-arm may be located at 180° from position illustrated, as the release operates either in tension or compression.

For location of V-belt drive see below.

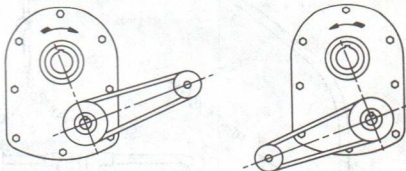


See "Torque-Arm Positions"—page G5-18.

### TRI-MATIC Overload Releases

Release No.	Reducer Size	Nominal Ratio	Part Number	Wt.	N	O	P Rad.	Q	T		V	Y Rad.
									Min.	Max.		
No. 10	TXT1	5, 15, 25	241119	9	...	7 1/4	8	3 13/32	27 3/8	33 3/8	...	...
	TXT2	5		14	8 19/16	7 1/2	8 3/4	4 1/2	30 19/16	36 19/16	13 1/8	9
No. 20	TXT3	5	242119	14	10 5/16	8 7/8	10 5/32	4 15/16	30 19/16	36 19/16	31 3/32	10 3/8
	TXT4	15, 25		14	18 15/16	7 1/2	8 3/4	4 1/2	30 19/16	36 19/16	13 1/8	9
No. 30	TXT3	15, 25	243119	14	10 5/16	8 7/8	10 5/32	4 15/16	36 19/16	36 19/16	31 3/32	10 3/8
	TXT4	5		18	11 25/32	10 1/16	11 15/32	5 1/2	33 3/4	39 3/4	13 3/32	11 27/32
No. 40	TXT5	5	244119	18	14 25/32	12 19/32	14 17/32	7 1/4	33 3/4	39 3/4	29 3/32	14 13/16
	TXT6	15, 25		18	11 25/32	10 1/16	11 15/32	5 1/2	33 3/4	39 3/4	13 3/32	11 27/32
No. 50	TXT5	15, 25	245119	18	13 31/32	12 1/16	13 3/4	6 5/8	33 3/4	39 3/4	1	14 13/32
	TXT6	5		24	16 5/8	14 7/32	16 7/16	8 7/32	34 5/8	40 5/8	7/8	16 21/32
No. 60	TXT6	15, 25	246119	24	15 27/32	13 3/8	15 11/16	7 3/4	34 5/8	40 5/8	19/16	15 7/8
No. 70	TXT7	5	247119	24	18 13/16	15 7/8	18 3/16	8 15/32	34 3/4	40 3/4	1 1/4	18 27/32
No. 80	TXT7	15, 25	247120	24	18 13/16	15 7/8	18 3/16	8 15/32	34 3/4	40 3/4	1 1/4	18 27/32
No. 100	TXT8	5	249119	49	23 3/8	20 5/8	22 23/32	9 1/2	40 1/8	46 1/8	...	...
	TXT9	5		49	23 3/8	20 5/8	22 23/32	9 1/2	40 1/8	46 1/8	...	...
No. 110	TXT8	15, 25	272431	49	21 3/8	19 9/16	21	7 5/8	40 1/8	46 1/8	...	...
	TXT9	15, 26		49	23 3/8	20 5/8	22	9 1/2	40 1/8	46 1/8	...	...
	TXT10	15, 24		49	25 1/8	23 3/16	25 13/64	8 15/16	40 1/8	46 1/8	...	...

**Location of V-belt Drive**—When using an overload release locate the V-belt drive in reference to the direction of rotation as shown in the diagrams. The arrows in the diagram indicate the direction of rotation of the driven shaft. This permits the release to trip and the belts to slacken when tripping occurs. The housings of both single and double reduction reducers tend to rotate in the direction opposite to that of the driven shaft.





## Cooling Fan Assemblies

Cooling fans are optional for use in cooling reducers shown in selection tables on pages G5-10, thru G5-15.

Installation is accomplished simply by attaching formed steel mounting straps to the reducer input shaft seal carrier. The fan assembly, fastened to the reducer input shaft, is compact enough to allow installation of the V-belt drive originally designed for the reducer. The fan housing is attached to the outer

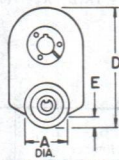
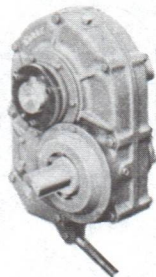
edges of the straps which are spaced to allow free circulation of air at the back of the housing as well as through the front of the unit.

The fan blade design offers a radial streamline air flow which means smaller fans yet a more efficient movement of air.

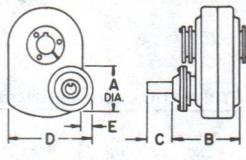
### Speed Reducer Cooling Fan Assemblies

Cooling Fan No.	Reducer Size	Minimal Ratio	Part Number	Wt.	A Diam.	B	C	D	E
TDT4	TXT4	9, 15, 25	272594	3	6 $\frac{3}{4}$	9 $\frac{1}{2}$	2 $\frac{15}{16}$	10 $\frac{9}{16}$	3 $\frac{1}{64}$
	SCXT4	9, 15, 25							
TDT5	TXT5	9, 15, 25	272369	3	7 $\frac{7}{8}$	9 $\frac{1}{4}$	3 $\frac{1}{32}$	13 $\frac{9}{16}$	0
	SCXT5	9, 15, 25							
TDT6	TXT6	9, 15, 25	272325	3	10 $\frac{3}{8}$	9 $\frac{7}{8}$	3 $\frac{7}{8}$	16 $\frac{7}{8}$	1 $\frac{3}{4}$
	SCXT6	9, 15, 25							
TDT7	TXT7	5, 9, 15, 25	272326	6	12 $\frac{7}{8}$	10 $\frac{23}{32}$	3 $\frac{1}{4}$	20 $\frac{15}{16}$	2 $\frac{3}{16}$
	SCXT7	5, 9, 15, 25							
TDT8	TXT8	5, 15, 25	272327	6	12 $\frac{7}{8}$	11 $\frac{21}{32}$	4 $\frac{9}{16}$	22 $\frac{5}{8}$	2 $\frac{3}{8}$
T19	TXT9	5	272324	6	12 $\frac{7}{8}$	11 $\frac{31}{64}$	6 $\frac{5}{8}$	32 $\frac{1}{8}$	0
TDT9	TXT9	15, 26	272328	15	16 $\frac{7}{8}$	11 $\frac{51}{64}$	6 $\frac{5}{8}$	26 $\frac{3}{8}$	3 $\frac{3}{4}$
TDT10	TXT10	15, 24	272329	15	16 $\frac{7}{8}$	13 $\frac{3}{4}$	6 $\frac{1}{8}$	27 $\frac{3}{4}$	2 $\frac{1}{4}$
TDT12	TXT12	15, 25	272330	15	16 $\frac{7}{8}$	15 $\frac{21}{32}$	5 $\frac{7}{8}$	46 $\frac{3}{4}$	3 $\frac{1}{4}$
TDT13	TDT13	25	272331	20	18 $\frac{5}{8}$	17 $\frac{15}{16}$	5 $\frac{11}{16}$	49 $\frac{3}{4}$	3 $\frac{15}{16}$
TDT14	TDT14	25	272332	20	18 $\frac{5}{8}$	20 $\frac{1}{32}$	8 $\frac{5}{8}$	52 $\frac{7}{8}$	2 $\frac{13}{16}$
TDT15	TDT15	30	272333	20	18 $\frac{5}{8}$	22 $\frac{15}{16}$	9 $\frac{1}{2}$	60 $\frac{5}{8}$	2

♣ Made-to-order.



TXT12 thru TDT15  
TXT705, 805 & 905

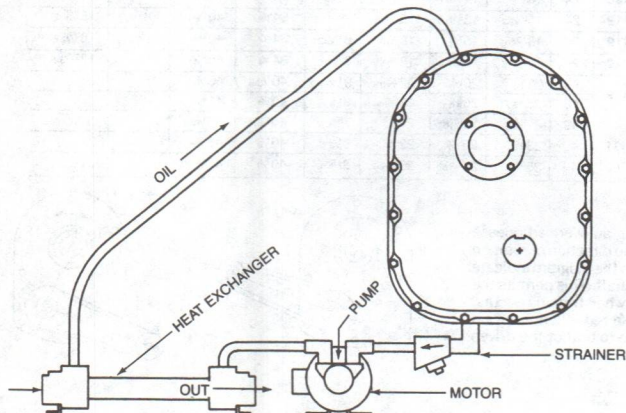


TXT4 thru TXT10 (9, 15, 25:1 Ratio)

## Reducer Heat Exchanger Cooling Package

For thermal capacities beyond the range of cooling fans, an optional heat exchanger cooling package is available to prevent overheating the reducer and allow the use of full mechanical HP rating by lowering the oil temperature to an acceptable level.

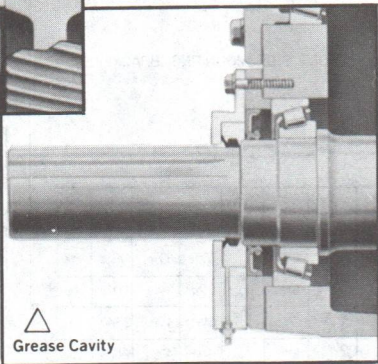
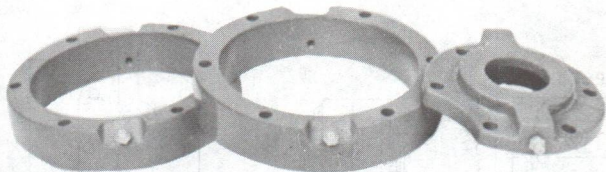
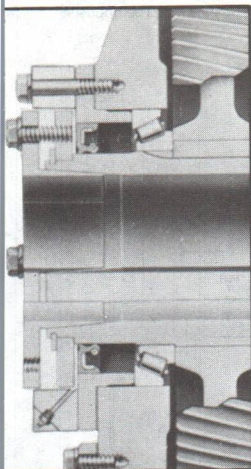
Specifications for the heat exchanger motor are as follows: 1/2 hp, 60 Hz, 3 Ph. 230/460 Volt, TEFC, 56 Frame. Minimum coolant (water) flow is 3 G.P.M. based upon a maximum water temperature of 80°F. Minimum oil temperature for operation is 60°F.



Part Number  
014148 ♣

♣ Made-to-order

## Torque-Arm Reducer (Taconite) Auxiliary Seal Kits



▲ Seal Ring

△ Grease Cavity

**Taconite Auxiliary Seal Kits**

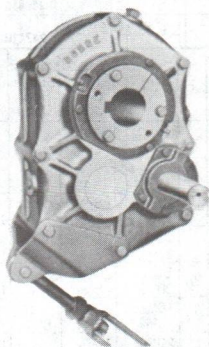
Reducer Size*	Nominal Ratio	Part Number	Reducer Size*	Nominal Ratio	Part Number
TXT1	9, 15, 25	272515	TXT12	15, 25	272455
TXT2	9, 15, 25	272446	TDT13	25	272456
TXT3	9, 15, 25	272517	TDT14	25	272457
TXT4	9, 15, 25	272518	TDT15	30	272458 ♣
TXT5	9, 15, 25	272519	...	...	...
TXT6	5, 9, 15, 25	272450	TXT105	5	272521
TXT7	5, 9, 15, 25	272451	TXT205	5	272459
TXT8	5, 15, 25	272452	TXT305	5	272523
TXT9	5, 15, 26	272453	TXT405	5	272524
TXT10	15, 24	272454	TXT505	5	272525

★ Taper bushed type only.

♣ Made-to-order.

**Note:** Factory will drill and tap reducer housing and install seal for a nominal charge. Details are furnished in instruction manual should customer desire to drill and tap himself.

Kit consists of two output seals and one input seal with necessary mounting hardware. Seal rings are equipped with a standard grease fitting and a large cavity which permits grease purging of seal for applications as severe as taconite mining, rock processing, fertilizer plants, etc. Available for taper bushed reducers, the sizes 1 thru 5 have to be drilled and tapped to accommodate seal. On sizes 6 and larger, the seal bolts to the existing seal carrier with longer bolts supplied with the kit. Air breathers, page G5-31, are included with each kit.

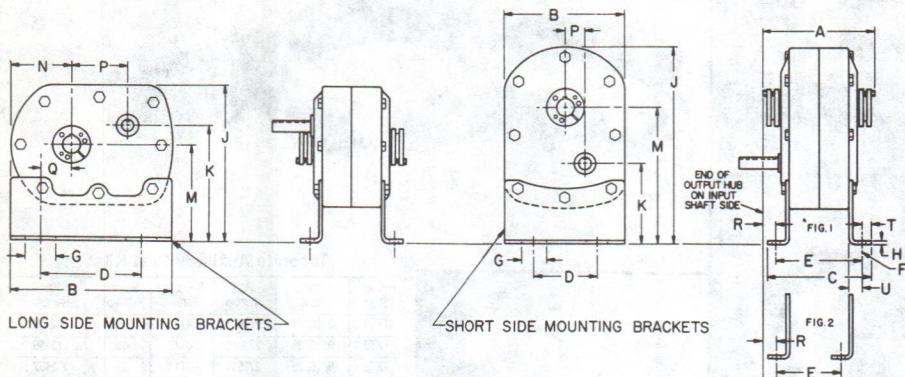




## Long and Short Side Mounting Brackets for Floor Mounting Torque-Arm Speed Reducers

Long and Short Side Mounting Brackets permit floor mounting both the single and double reduction Torque-Arm reducers. Larger size brackets available. Consult factory for price and delivery. Output shafts are available and may be

used for mounting sheaves, sprockets, pinions, etc. Output shafts and overhung load ratings are shown on the opposite page.



### Long and Short Side Mounting Brackets

Bracket No.		Reducer Size	Nominal Ratio	Part Number		Wt.	A	B	C	D	Fig. 1	E Fig. 2 & 3	Fig. 4	F Bolt
Long Side	Short Side			Long Side	Short Side									
TAL1	TAS1	TXT1	5, 9, 15, 25	241412	241410	3.5 2.9	7 1/16	9 19/16 7 7/8	6 19/32	6 43/4	5 7/32	3 9/16	1 29/32	3/8
TAL2	TAS2	TXT2	5, 9, 15, 25	242412	242410	3.8 4.2	7 9/16	11 13/32 8 3/8	6 19/32	7 1/2 4 1/2	5 7/32	3 9/16	1 29/32	3/8
TAL3	TAS3	TXT3	5, 9, 15, 25	243412	243410	5.8 4.9	8 29/32	12 7/8 9 1/4	7 7/32	8 9/4	6 19/32	4 7/16	2 13/32	7/16
TAL4	TAS4	TXT4	5, 9, 15, 25	244412	244410	9.2 7.9	9 3/4	15 1/8 10 3/8	8 19/32	11 6 1/4	6 31/32	4 7/8	2 29/32	7/16
TAL5	TAS5	TXT5	5, 9, 15, 25	245412	245410	12 15	10 7/32	18 1/8 13 1/8	8 29/32 9 29/32	13 1/2 8 1/4	6 31/32 7 31/32	4 7/16	1 29/32	1/2
TAL6	TAS6	TXT6	5, 9, 15, 25	246412	246410	16 18	11 1/2	21 1/8 15 1/8	10 7/32	16 1/2 10 1/4	8 19/32	4 13/16	▲	1/2
TAL7	TAS7	TXT7	5, 9, 15, 25	247412	247410	27 30	12 13/16	25 1/8 18 3/4	10 23/32	21 1/2 14 1/4	8 19/32	5 1/8	▲	3/4

Bracket No.		K			P									
Long Side	Short Side	G	H	J	Dbl. Red. Units	Single Red. Units	M	N	Dbl. Red. Units	Single Red. Units	Q	R	S	T U
TAL1	TAS1	2 9/16	3 1/8	8 11/16	7 1/32	5 1/8	3 3/4	3 3/16	3 1/4	1 29/32	5 9/64	2 27/64	5/8	5 9/64
TAL2	TAS2	2 9/16	3 1/8	9 7/16	7 1/8	5 1/4	4 3/32	3 3/4	3 3/8	2 9/64	1 3/64	2 45/64	5/8	5 9/64
TAL3	TAS3	2 3/4	3 1/8	11 7/32	8 29/32	6 19/32	4 13/16	4 3/16	4 1/4	2 29/32	1 5/32	3 3/16	3/4	1 7/64
TAL4	TAS4	2 3/4	1/4	12 11/32	9 29/32	7 1/32	5 1/2	4 29/32	4 7/8	3 7/16	1 25/64	3 31/64	3/4	1 11/64
TAL5	TAS5	3 1/2	5/16	14 1/4	10 9/4	7 1/8	6 9/16	5 11/16	5 7/8	4 9/32	1 5/8	4 5/32	7/8	1 27/64
TAL6	TAS6	3 1/2	5/16	16 1/8	12 11/16	8 9/16	7 9/16	6 3/4	6 57/64	5 9/32	1 9/16	5 7/32	7/8	1 63/64
TAL7	TAS7	3 1/16	3/8	20 13/16	16 9/16	10 9/16	11 7/8	8 9/16	8 9/16	7 9/32	2 15/64	5 37/64	1 1/8	1 55/64

**Note**—Dimensions are the same for single and double reduction units unless otherwise stated.

★ Includes (2) steel feet and necessary mounting hardware. Short style feet are symmetrical. Long style feet will be furnished one right and one left hand unless otherwise specified. (Specify (2) left hand feet if Fig. 2 mounting is required or (2) right hand if Fig. 3 mounting is required.)

† Will fit equivalent sizes of Screw Conveyor Drive.

▲ Cannot be mounted as shown in Fig. 4.

8 1/2" on T12 size.

9 1/2" on T12 size.

13 3/32" on T12 size.

\*\* 4 1/8" on T12 size.

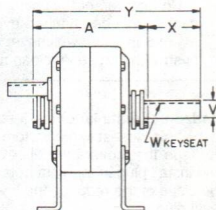
# Speed Reducer Output Shafts

## Reducer Output Shafts

Size No.	Part No.	Wt.	Reducer Size	Nominal Ratio	A	V Diam.	W Keyseat	X	Y	Bushing Required
TUT1	241014	4.0	TXT1 TXT2	5, 9, 15, 25 5, 9, 15, 25	7 <sup>1</sup> / <sub>16</sub> 7 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	3/8 x 3/16	3 <sup>1</sup> / <sub>16</sub> 2 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub> 10 <sup>1</sup> / <sub>16</sub>	TXT1 x 1 <sup>1</sup> / <sub>16</sub> TXT2 x 1 <sup>1</sup> / <sub>16</sub>
TUT2	242014	8.9	TXT2 TXT3	5, 9, 15, 25 5, 9, 15, 25	7 <sup>1</sup> / <sub>16</sub> 8 <sup>2</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	1/2 x 1/4	4 <sup>1</sup> / <sub>16</sub> 3 <sup>1</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>16</sub> 12 <sup>9</sup> / <sub>32</sub>	TXT2 x 1 <sup>1</sup> / <sub>16</sub> TXT3 x 1 <sup>1</sup> / <sub>16</sub>
TUT3	243014	13	TXT3 TXT4	5, 9, 15, 25 5, 9, 15, 25	8 <sup>2</sup> / <sub>32</sub> 9 <sup>3</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>16</sub>	1/2 x 1/4	5 <sup>1</sup> / <sub>16</sub> 4 <sup>3</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>32</sub> 14 <sup>1</sup> / <sub>16</sub>	TXT3 x 2 <sup>1</sup> / <sub>16</sub> TXT4 x 2 <sup>1</sup> / <sub>16</sub>
TUT4	244014	17	TXT4 TXT5	5, 9, 15, 25 5, 9, 15, 25	9 <sup>3</sup> / <sub>32</sub> 10 <sup>7</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>16</sub>	5/8 x 5/16	5 <sup>1</sup> / <sub>16</sub> 5	15 <sup>1</sup> / <sub>16</sub> 15 <sup>3</sup> / <sub>32</sub>	TXT4 x 2 <sup>1</sup> / <sub>16</sub> TXT5 x 2 <sup>1</sup> / <sub>16</sub>
TUT5	245014	28	TXT5 TXT6	5, 9, 15, 25 5, 9, 15, 25	10 <sup>7</sup> / <sub>32</sub> 11 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>16</sub>	3/4 x 3/8	6 <sup>1</sup> / <sub>16</sub> 5 <sup>1</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>32</sub> 16 <sup>1</sup> / <sub>16</sub>	TXT5 x 2 <sup>1</sup> / <sub>16</sub> TXT6 x 2 <sup>1</sup> / <sub>16</sub>
TUT6	246014	44	TXT6 TXT7	5, 9, 15, 25 5, 9, 15, 25	11 <sup>1</sup> / <sub>2</sub> 12 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	7/8 x 7/16	7 <sup>1</sup> / <sub>16</sub> 6 <sup>1</sup> / <sub>32</sub>	19 19 <sup>3</sup> / <sub>32</sub>	TXT6 x 3 <sup>1</sup> / <sub>16</sub> TXT7 x 3 <sup>1</sup> / <sub>16</sub>

◆ Key is furnished with stub shaft.

▲ See page G5-23 for bushing information.



**Table 10—Output Shaft Overhung Load Ratings for Double Reduction Reducers**

Reducer Size	Nominal Ratio	Shaft Size	Overhung Load (in Lbs.) @ Various RPM's*							
			10	20	30	50	80	100	120	140
TXT1	9, 15, 25	1 <sup>1</sup> / <sub>4</sub>	1990	1520	1300	1100	930	780	760	740
		1 <sup>7</sup> / <sub>16</sub>	1700	1300	1110	945	790	665	650	640
TXT2	9, 15, 25	1 <sup>7</sup> / <sub>16</sub>	2000	1510	1270	1010	840	820	720	720
		1 <sup>1</sup> / <sub>16</sub>	1750	1320	1110	890	730	710	630	630
TXT3	9, 15, 25	1 <sup>1</sup> / <sub>16</sub>	2620	1970	1830	1490	1130	1100	1080	1050
		2 <sup>3</sup> / <sub>16</sub>	2340	1760	1640	1330	1010	990	970	940
TXT4	9, 15, 25	2 <sup>3</sup> / <sub>16</sub>	3270	2300	2180	1640	1350	1170	1040	1030
		2 <sup>7</sup> / <sub>16</sub>	2950	2070	1970	1480	1220	1050	930	940
TXT5	9, 15, 25	2 <sup>7</sup> / <sub>16</sub>	4130	2840	2470	2020	1550	1410	1430	....
		2 <sup>1</sup> / <sub>16</sub>	3730	2560	2230	1820	1400	1270	1290	....
TXT6	9, 15, 25	2 <sup>1</sup> / <sub>16</sub>	9100	6100	6100	5000	4100	4050	3700	....
		3 <sup>1</sup> / <sub>16</sub>	8200	7400	5500	4500	3700	3650	3400	....
TXT7	9, 15, 25	3 <sup>1</sup> / <sub>16</sub>	11,400	9500	7300	5950	4750	5050	4500	....

\* Values shown are for loads applied at one output shaft diameter from reducer bushing. Interpolate for values between RPM's listed.

**Table 11—Output Shaft Overhung Ratings for Single Reduction Reducers**

Reducer Size	Nominal Ratio	Shaft Size	Overhung Load (in Lbs.) @ Various RPM's*							
			100	150	200	250	300	350	400	
TXT1	5	1 <sup>1</sup> / <sub>4</sub>	775	610	600	500	500	500	490	
		1 <sup>7</sup> / <sub>16</sub>	660	520	520	430	430	420	420	
TXT2	5	1 <sup>7</sup> / <sub>16</sub>	760	620	530	530	530	530	520	
		1 <sup>1</sup> / <sub>16</sub>	665	545	470	470	470	460	460	
TXT3	5	1 <sup>1</sup> / <sub>16</sub>	850	850	700	700	700	690	690	
		2 <sup>3</sup> / <sub>16</sub>	760	760	630	630	630	620	610	
TXT4	5	2 <sup>3</sup> / <sub>16</sub>	1000	870	770	800	720	730	740	
		2 <sup>7</sup> / <sub>16</sub>	910	780	690	720	650	660	670	
TXT5	5	2 <sup>7</sup> / <sub>16</sub>	1360	1060	1120	1140	970	980	980	
		2 <sup>1</sup> / <sub>16</sub>	1230	960	1010	1020	810	890	890	
TXT6	5	2 <sup>1</sup> / <sub>16</sub>	4350	3850	3500	3250	3200	3100	3050	
		3 <sup>1</sup> / <sub>16</sub>	3950	3500	3200	2950	2900	2800	2750	
TXT7	5	3 <sup>1</sup> / <sub>16</sub>	3800	3650	3300	3450	3500	3400	3300	

\* Values shown are for loads applied at one output shaft diameter from reducer bushing. Interpolate for values between RPM's listed.

**Table 12—WR<sup>2</sup> (LB-FT<sup>2</sup>) AT HIGH SPEED SHAFT**

Reducer Size	Nominal Ratio				Reducer Size	Nominal Ratio			
	5:1	9:1	15:1	25:1		5:1	9:1	15:1	25:1
TXT1	.002	.013	.007	.007	TXT9	1.66	....	1.39	.794
TXT2	.013	.027	.011	.007	TXT10	....	....	1.63	.927
TXT3	.034	.059	.026	.013	TXT12	....	....	7.71	3.68
TXT4	.075	.092	.043	.023	TDT13	....	....	....	6.56
TXT5	.150	.233	.099	.067	TDT14	....	....	....	9.0
TXT6	.201	.461	.197	.109	TDT15	....	....	....	11.42
TXT7	.48	1.00	.417	.285					
TXT8	.96	....	.942	.571					

★ Values shown are for loads applied at one output shaft diameter from reducer bushing. Interpolate for values between RPM's listed.



**Important:** Since reducer is shipped without oil, it is necessary to add the proper amount of oil before running. Use a high grade petroleum base, rust and oxidation inhibited (R & O) gear oil—see table 25. Follow instructions on reducer nameplate, warning tags, and in the installation manual.

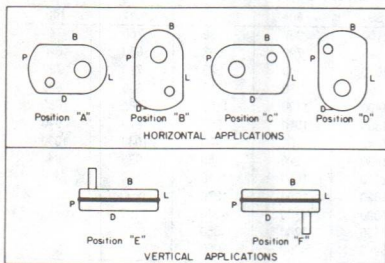
Under average industrial operating conditions, the lubricant should be changed every 2500 hours of operation or every 6 months, whichever occurs first. Drain reducer and flush with kerosene, clean magnetic drain plug and refill to

proper level with new lubricant. Caution: Too much oil will cause overheating and too little will result in gear failure. Check oil level regularly.

Under extreme operating conditions, such as rapid rise and fall of temperature, dust, dirt, chemical particles, chemical fumes, or oil sump temperatures above 200°F, the oil should be changed every 1 to 3 months depending on severity of conditions.

**Horizontal Installations**—Install the magnetic drain plug in the hole closest to the bottom of the reducer. Throw away the tape that covers the filler/ventilation plug in shipment and install plug in topmost hole. Of the remaining plugs on the sides of the reducer, the lowest one is the minimum oil level plug.

**Vertical Installations**—Install the filler/ventilation plug in the hole provided in the top face of the reducer housing. Use the hole in the bottom face for the magnetic drain plug. Of the remaining holes on the sides of the reducer, use a plug in the upper housing half for the minimum oil level plug.



B: Breather, D: Drain, L: Oil Level Plug, P: Plug

FIG. 1 — Mounting Positions

The running position of the reducer in a horizontal application is not limited to the four positions shown in Figure 1. However, if running position is over 20° either way from sketches, the oil level plug cannot be safely used to check the oil level, unless during the checking the torque arm is disconnected and the reducer is swung to within 20° of the positions shown in Figure 1. Because of the many possible positions of the reducer, it may be necessary or desirable to make special adaptations using the lubrication fitting holes furnished along with other standard pipe fittings, stand pipes and oil level gauges as required.

**Note:** For oil capacity, see page G5-45.

Table 25—Minimum Oil Recommendations for Average Operating Conditions

Ratio and Output RPM	Room Temp. ° Fahr.	Oil		Viscosity	
		S.A.E. No.	AGMA Lub. No.	ASTM SUS @ 100°F.	Metric Equiv. c St @ 40°C.
25:1—Up to 45 rpm	-25° thru 50° 15° thru 50° 50° thru 125°	10W30	—	—	—
15:1—Up to 75 rpm		30	3	417 to 510	90 to 110
9:1—Up to 120 rpm		40	4	626 to 765	135 to 165
5:1—Up to 225 rpm					
25:1—46 rpm and Up	-25° thru 50° 15° thru 50° 50° thru 125°	10W40	—	—	—
15:1—76 rpm and Up		40	4	626 to 765	135 to 165
9:1—120 rpm and Up		50	5	918 to 1122	198 to 242
5:1—226 rpm and Up					

**NOTE:**

Pour point of lubricant selected should be at least 10°F lower than expected minimum ambient starting temperature.

Extreme pressure (EP) lubricants are not recommended for average operating conditions.

Special lubricants may be required for food and drug industry applications where contact with the product being manu-

factured may occur. Consult a lubrication manufacturer's representative for his recommendations.

Do not use oils containing slippery additives such as graphite or molybdenum disulphide in the reducer when backstop is used. These additives will destroy sprag action.

Table 26—Approx. Oil Capacity in Quarts¹

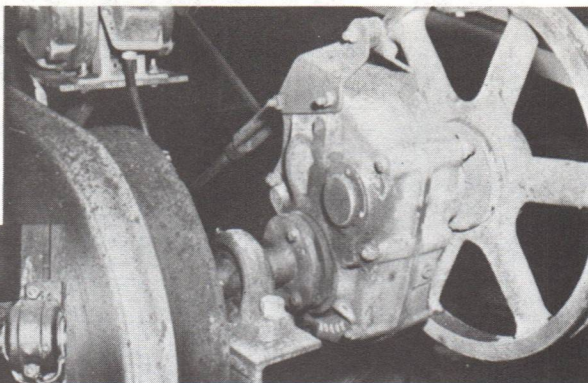
Reducer Size TXT SCXT HXT	Reducer Positions					
	Horizontal				Vertical	
	A	B	C	D	E	F
109, 115, 125	1/2	1/2	5/8	3/4	1	1 1/4
105	5/8	3/4	5/8	3/4	1 1/8	1 3/8
209, 215, 225	7/8	1	5/8	1	1 5/8	1 3/4
205	3/4	7/8	7/8	7/8	1 3/4	2 1/4
309, 315, 325	1 1/2	1 1/2	3/4	2 1/8	2 5/8	3
305	7/8	1 1/2	1 3/8	1 3/8	2 1/2	3 1/8
409, 415, 425	1 7/8	2 1/4	1 1/4	1 3/4	3 3/8	4 1/4
405	1 1/2	2 1/4	2 1/8	1 7/8	4	4 7/8
509, 515, 525	3 1/4	4	3 1/4	4	7	8 5/8
505	3 3/8	4 1/4	3 7/8	3 3/4	7 3/4	9
609, 615, 625	4 1/4	5	4 1/4	5	8 5/8	9 1/8
605	4 1/2	5 3/4	4 1/2	5	12	11
709, 715, 725	6 1/2	8	7 1/4	9 1/4	15 3/8	16 3/8
705	7 1/2	9	7 1/2	9 1/4	19	17 1/4
815, 825	8 1/2	11	10 1/2	8 1/2	19 1/8	19 1/8
805	6	15	10	8 1/2	22	18 3/4
915, 926	13	13	12 1/2	14 1/4	25 3/8	25 3/8
905	14 3/4	15	16 1/4	13 3/4	31 7/8	31 7/8
1015, 1024	23	14	15 3/4	18 3/4	41	41
1215, 1225	59	38	59	36 1/2	100	100
TDT1325	86	62	86	59	110	110
TDT1425	120	88	120	61	150	150
TDT1530	197	138	192	170	281	281

(1) U.S. Measure: 1 qt. = 32 fluid oz.

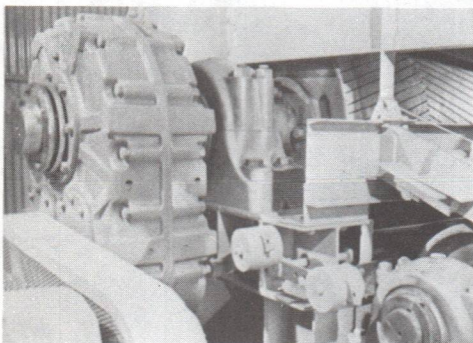
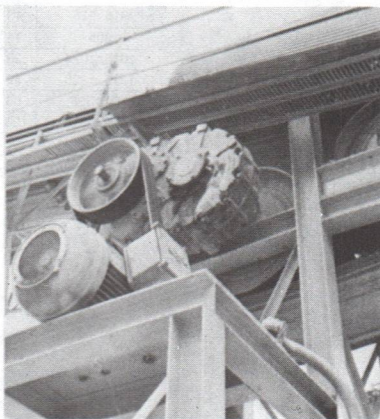
**NOTE**—Below 10 RPM oil level must be adjusted to reach highest oil level plug (P). See page G5-44.



Torque-Arm speed reducers with twin tapered bushing have performed efficiently on these two typical industrial applications involving wet and corrosive environments. Top photograph shows a size TXT425 reducer driving a belt conveyor in a Pennsylvania fertilizing plant. In the lower photograph a TXT625 reducer is part of a tanning drum drive, in an eastern leather processing plant.



One of Indiana's largest sand and gravel companies increased capacity to 1,000 tons per hour by extending its main belt conveyors, using TDT1325 and TDT1425 Torque-Arm speed reducers with tapered bushings.

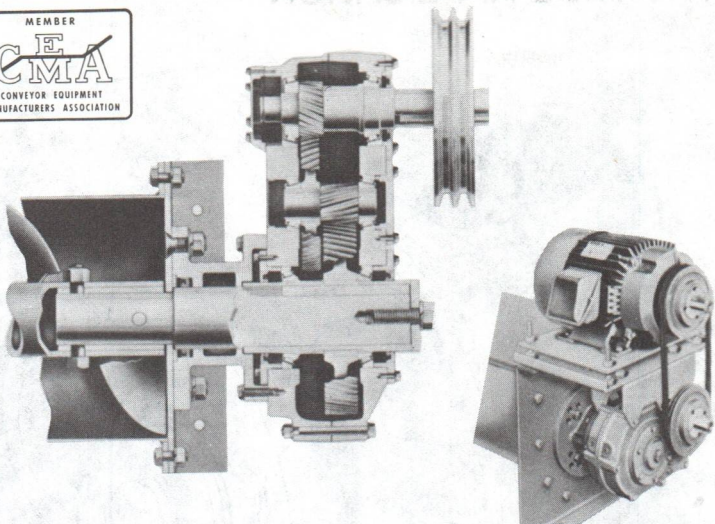


This 36" slope belt conveyor at U.S. Steel Corporation's Mt. Braddock mine in Pennsylvania is equipped with a TDT1425 Torque-Arm speed reducer with an 8" bore. The conveyor is driven by a 150 hp motor thru 6-5V Dyna-V® belts. Other components furnished by Dodge include Taper-Lock® steel conveyor pulleys and Special Duty pillow blocks.

NOTE: Guards have been removed from all pictures for photographic purposes.

# DODGE® SCREW CONVEYOR DRIVE

U.S. Patent No. D237, 900



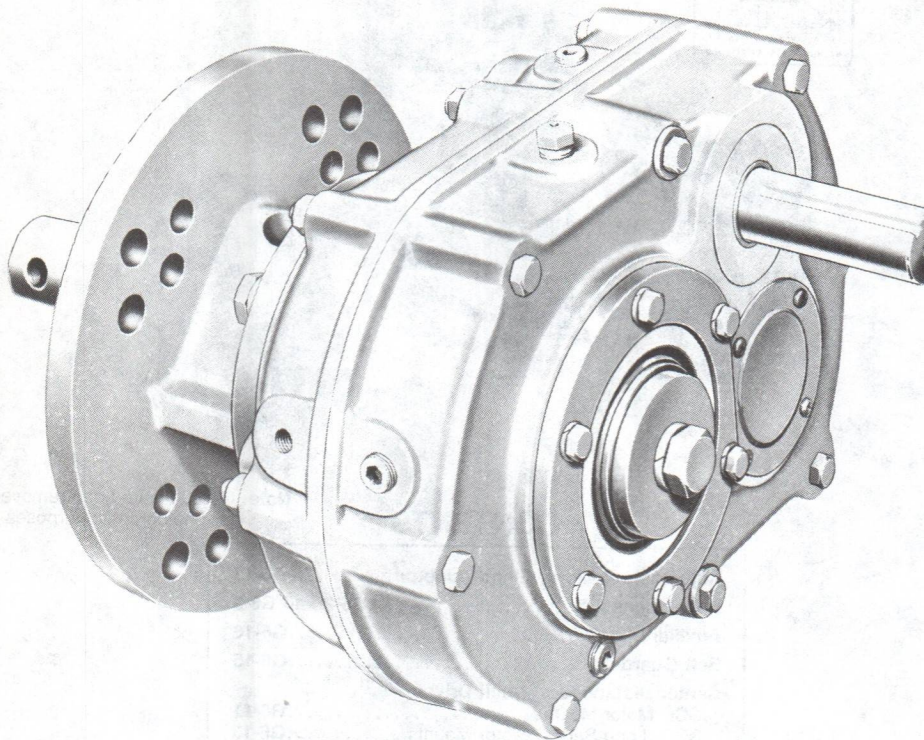
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**Note:** Guards have been removed for photographic purposes.

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# DODGE® SCREW CONVEYOR DRIVES INDUSTRY WIDE APPLICATION



The Dodge complete, rugged, highly developed, screw conveyor drive mounts on the trough end of your screw conveyor. Tapered roller bearings in the reducer take the thrust from the screw conveyor. This eliminates the external thrust bearing commonly required. The drives may be mounted in any position on horizontal, inclined, or vertical shafts by relocating breather and drain plugs. For complete drive between trough and motor, specify the screw conveyor drive and the following accessories: trough end plate and motor mount.

Where V-belt drives or electric motors cannot be used, Dodge offers a screw conveyor drive powered by a hydraulic motor. See pages G7-18 and G7-19.

## Typical Industry Applications

<b>Food</b>	<b>Agriculture</b>
<b>Grain</b>	<b>Soaps</b>
<b>Aggregates</b>	<b>Lumber</b>
<b>Chemicals</b>	<b>Stone</b>
<b>Minerals</b>	<b>Clay</b>
<b>Coal</b>	<b>Glass</b>

... and many more

# DODGE® SCREW CONVEYOR DRIVES

## Three alternatives in Standard Adapter Seals

### Double Lip Seals.

They're pre-lubricated for protection from dust and dirt during installation, and are excellent for conveying semi-solids. Metallic parts are coated with synthetic rubber for added protection from corrosion.



### Waste Packing.

This can be inserted in a special cavity in the adapter for added protection while operating under abrasive conditions.



### Braided Felt Seal.

For unusually dusty environments like granaries or fertilizer plants, the braided felt seal offers special protection.



## Dodge quality at competitive prices, designed with the Screw Conveyor Industry in mind.

The dependable Dodge Screw Conveyor drive provides a rugged, competitively priced, application-engineered drive for standard CEMA screw conveyors.

The screw conveyor drive incorporates the proven reliability you have come to expect from the Dodge Torque-Arm reducer line.

Tapered roller bearings within the drive eliminate the need for an external thrust bearing. The bearings take thrust from the screw conveyor and make external thrust bearings unnecessary.

Dodge Screw Conveyor Drives are available in 5:1, 9:1, 15:1 and 25:1 ratios and the durable drives include:

A compact design reducer.

The CEMA standard drive shaft.

A standard trough end mounting adapter with CEMA four-bolt mounting.

Standard adapter with your choice of lip, braided or waste pack seals.

Optional adjustable packing gland adapter.

## Dodge adapter conforms to any CEMA trough end.

The Dodge four-bolt adapter gives mounting conformity to any CEMA standard screw conveyor drive application. It's easy to remove from the trough end and adapts to screw diameters of 6 through 24 inches.



## New, adjustable Packing Gland Adapters available.

The unique packing gland adapter allows compressing of packing in the seal area. This means you can extend the life and effectiveness of the sealing system.



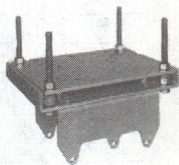
## Two trough end styles offer you easy mounting capability.

Standardized trough end plates are available in either "U" or flared flange styles for your specific requirements and all Dodge Screw Conveyor Drives are manufactured to rigid CEMA standards.



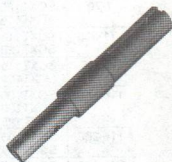
## Motor mounts need no drilling.

Rugged, all-steel Dodge motor mounts bolt directly to the screw conveyor drive. They're available in fourteen sizes, which easily fit NEMA motor frames. Since the four adjusting bolts allow easy belt tensioning, it's less time-consuming and you save on installation costs immediately.



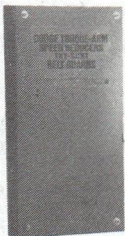
## CEMA drive shafts offer easy installation and maintenance.

This means increased production, less down-time and substantial cost savings. You can save even more because of convenience and interchangeability. Different diameter drive shafts are interchangeable within each drive. And there's a wide range of diameters from 1 1/2 to 3 7/16 inches for you to choose from, including three-hole CEMA drive shafts for large diameter screw conveyors. Stainless steel shafts can be furnished on request.



## Belt Guard.

A belt guard with mounting straps for SCXT Reducers will fit standard SCD M series motor mounts. The new belt guards are designed to fit most common sheave diameters. They mount easily with no machining required.





## Selection of Dodge Screw Conveyor Drives

Determine whether the Service is Class I, II or III, then find the size of drive on the appropriate pages that follow.

**Class I**—Steady load not exceeding Motor HP Rating and light shock loads during a 10 hour day. Moderate shock loads are allowable if operation is intermittent.

**Class II**—Steady load not exceeding Motor HP Rating for over 10 hours a day. Moderate shock loads are allowable during a 10 hour day.

**Class III**—Moderate shock loads for over 10 hours a day. Heavy shock loads are allowable during a 10 hour day.

**Peak HP**—In some cases, this may momentarily be very high. For example: high inertia loads, oversize motors, high torque motor, etc. Even if the running load is less than motor HP rating, possible peak loads may be 300% of motor HP rating with normal torque squirrel cage motors and 400% with high torque motors.

**Thrust Capacity**—See table on page G6-7.

**V-belt Drives**—Drives for normal service and standard motor speeds for double reduction drives and for single reduction drives are listed in section G8.

## Class I Applications—Selection of Screw Conveyor Drives

Use the table below for applications listed as Class I above. The maximum value of starting and momentary peak loads should not exceed 2 × Motor HP rating for Class I Applications.

If it exceeds this amount, it should be divided by 2 and the result used in the table below instead of the Motor HP rating.

**Table 12—Class I Applications—Selection of Screw Conveyor Drives**

Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
¼ HP MOTOR		1 HP MOTOR (Contd.)		3 HP MOTOR (Contd.)		10 HP MOTOR		20 HP MOTOR (Contd.)		40 HP MOTOR			
4-70	SCXT125 SCXT115	6-7 8-15	SCXT325 SCXT225	52-70	SCXT125 SCXT115	11-15 16-25	SCXT725 SCXT625	99-115	SCXT415 SCXT409+	49-70	SCXT725 SCXT715+		
71-85	SCXT115 SCXT125	16-70	SCXT125 SCXT115	71-85	SCXT115 SCXT125	26-39	SCXT525 SCXT515	116-140	SCXT409 SCXT415 SCXT505	71-75	SCXT715 SCXT725+		
86-115	SCXT115 SCXT109	71-85	SCXT115 SCXT125	86-115	SCXT115 SCXT109	40-70	SCXT425 SCXT415	141-200	SCXT405 SCXT409+	76-79	SCXT715+		
116-140	SCXT105 SCXT109 SCXT115	86-115	SCXT115 SCXT109	116-140	SCXT105 SCXT109 SCXT115	71-85	SCXT315 SCXT325		201-400	SCXT405	80-81	SCXT615+	
141-200	SCXT105 SCXT109	116-140	SCXT105 SCXT109 SCXT115	141-200	SCXT105 SCXT109	86-103	SCXT315 SCXT309	25 HP MOTOR		116-125	SCXT605 SCXT609 SCXT615+		
201-400	SCXT105	141-200	SCXT105 SCXT109	201-400	SCXT105	104-115	SCXT215 SCXT209	29-44	SCXT725 SCXT715	126-200	SCXT605 SCXT609+		
½ HP MOTOR		201-400	SCXT105	5 HP MOTOR		116-140	SCXT209 SCXT215 SCXT305	45-70	SCXT625 SCXT615	201-260	SCXT605		
5-70	SCXT125 SCXT115	1½ HP MOTOR		5-7	SCXT725	141-191	SCXT305 SCXT309	71-74	SCXT615 SCXT625	261-400	SCXT505		
71-85	SCXT115 SCXT125	4-5	SCXT525	8-11	SCXT625	192-200	SCXT305 SCXT309	75-80	SCXT515 SCXT525	50 HP MOTOR			
86-115	SCXT115 SCXT109	6-8	SCXT425	12-19	SCXT525	201-400	SCXT205 SCXT209	81-115	SCXT515 SCXT509+	65-70	SCXT725 SCXT715+		
116-140	SCXT105 SCXT109 SCXT115	9-12	SCXT325	20-32	SCXT425 SCXT415	201-400	SCXT205 SCXT209	116-119	SCXT505 SCXT509 SCXT515+	71-75	SCXT715 SCXT725+		
141-200	SCXT105 SCXT109	13-23	SCXT225	33-46	SCXT325 SCXT315		15 HP MOTOR		120-132	SCXT509 SCXT515+	76-104	SCXT715 SCXT709+	
201-400	SCXT105	24-70	SCXT125 SCXT115	47-70	SCXT225 SCXT215	17-25	SCXT725	133-140	SCXT415 SCXT505 SCXT509+	105-115	SCXT615 SCXT609+		
¾ HP MOTOR		71-85	SCXT115 SCXT109	71-85	SCXT215 SCXT225	40-66	SCXT625 SCXT615	141-193	SCXT409 SCXT415 SCXT505	116-125	SCXT609 SCXT615 SCXT705		
4-6	SCXT225	116-140	SCXT105 SCXT109 SCXT115	86-92	SCXT109 SCXT215	67-70	SCXT425 SCXT415	194-200	SCXT405 SCXT409+	126-178	SCXT609 SCXT705		
7-70	SCXT125 SCXT115	141-200	SCXT105 SCXT109	93-115	SCXT109 SCXT109 SCXT115	71-85	SCXT415 SCXT425	201-400	SCXT405 SCXT405	179-200	SCXT605 SCXT609+		
71-85	SCXT115 SCXT125	201-400	SCXT105	116-119	SCXT115	86-109	SCXT415 SCXT409	201-400	SCXT405 SCXT405	201-400	SCXT605		
86-115	SCXT115 SCXT109	2 HP MOTOR		120-140	SCXT105 SCXT109 SCXT115	110-115	SCXT409 SCXT415	30 HP MOTOR		60 HP MOTOR			
116-140	SCXT105 SCXT109 SCXT115	5-7	SCXT525	141-200	SCXT105 SCXT109	116-140	SCXT415 SCXT405 SCXT409+	34-56	SCXT725 SCXT715	80-115	SCXT715 SCXT709+		
114-200	SCXT105 SCXT109	8-11	SCXT425	201-400	SCXT105	141-200	SCXT405 SCXT409+	57-70	SCXT725 SCXT715	116-120	SCXT709 SCXT715+		
201-400	SCXT105	12-17	SCXT325	7½ HP MOTOR		201-400	SCXT405 SCXT409+	71-80	SCXT615 SCXT625+	121-145	SCXT705 SCXT709+		
1 HP MOTOR		17-19	SCXT525	8-11	SCXT725	20 HP MOTOR		81-91	SCXT615 SCXT609	146-162	SCXT609 SCXT705		
4-5	SCXT325	19-29	SCXT425	12-18	SCXT625	22-34	SCXT725 SCXT715	92-93	SCXT615 SCXT509+	163-200	SCXT705 SCXT709+		
6-10	SCXT225	30-49	SCXT415	19-29	SCXT525	35-57	SCXT625 SCXT615	94-115	SCXT515 SCXT509+	201-285	SCXT705		
11-70	SCXT125	50-70	SCXT325	30-49	SCXT425 SCXT415	58-70	SCXT525 SCXT515	116-125	SCXT509 SCXT515 SCXT605	286-400	SCXT605		
71-85	SCXT115 SCXT125	71-74	SCXT315 SCXT325	71-85	SCXT215 SCXT225	71-80	SCXT515 SCXT525	75 HP MOTOR		104-115	SCXT715 SCXT709+		
86-115	SCXT115 SCXT109	86-115	SCXT105 SCXT109	86-115	SCXT215 SCXT209	81-85	SCXT515 SCXT525	126-145	SCXT509 SCXT605	116-120	SCXT709 SCXT715+		
116-140	SCXT105 SCXT109 SCXT115	116-140	SCXT105 SCXT109 SCXT115	116-140	SCXT205 SCXT209 SCXT215	86-92	SCXT515 SCXT509	146-165	SCXT505 SCXT509+	121-167	SCXT709 SCXT805		
141-200	SCXT105 SCXT109	201-400	SCXT105	141-200	SCXT205 SCXT209 SCXT215	93-98	SCXT415 SCXT509	166-200	SCXT409 SCXT505	168-188	SCXT705		
201-400	SCXT105	11-18	SCXT425	201-231	SCXT205			201-281	SCXT505	189-400	SCXT705		
1 ½ HP MOTOR		19-26	SCXT325	232-400	SCXT105			282-400	SCXT405				
4-5	SCXT425	27-51	SCXT225 SCXT215										

+ Fan cooling required—See page G5-40.

Note: Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.



## Class II Applications for Selection of Screw Conveyor Drives

Use the table below for applications listed as Class II on page G6-4. the maximum value of starting and momentary peak loads should not exceed  $2.8 \times$  Motor HP Rating for Class II

Applications. If it exceeds this amount, it should be divided by 2.8 and the result used in the table below instead of the Motor HP Rating.

**Table 13—Class I—Applications for Selection of Screw Conveyor Drives**

Class 13 - Application for Selection of Screw Conveyor, Entry											
Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
1/4 HP MOTOR		1 HP MOTOR (Contd.)		3 HP MOTOR (Contd.)		10 HP MOTOR		20 HP MOTOR (Contd.)		40 HP MOTOR	
70	SCXT125 SCXT115	6-7 8-15	SCXT325 SCXT225	52-70	SCXT125 SCXT115	11-15 16-25	SCXT725 SCXT625	99-115	SCXT415 + SCXT409 +	49-70	SCXT725 + SCXT715 +
85	SCXT115 SCXT125	16-70	SCXT125 SCXT115	71-85	SCXT115 SCXT125	26-39	SCXT525 SCXT515	116-140	SCXT409 + SCXT415 + SCXT505	71-75	SCXT715 + SCXT725 +
115	SCXT115 SCXT109	71-85	SCXT115 SCXT125	86-115	SCXT115 SCXT109	40-70	SCXT425 SCXT415	141-200	SCXT405 SCXT409 +	76-79 80-81	SCXT715 + SCXT615 +
140	SCXT105 SCXT109 SCXT115	86-115	SCXT115 SCXT109	116-140	SCXT105 SCXT109 SCXT115	71-85	SCXT315 SCXT325	201-400	SCXT405	82-115	SCXT615 + SCXT609 +
200	SCXT105 SCXT109	116-140	SCXT105 SCXT109 SCXT115	141-200	SCXT105 SCXT109	86-103	SCXT315 SCXT309	25 HP MOTOR		116-125	SCXT605 SCXT609 + SCXT615 +
400	SCXT105	141-200	SCXT105 SCXT109	201-400	SCXT105	104-115	SCXT215 SCXT209	29-44	SCXT725 SCXT715	126-200	SCXT605 SCXT609 +
1/2 HP MOTOR		201-400	SCXT105	5 HP MOTOR		116-140	SCXT209 SCXT215 SCXT305	45-70	SCXT625 SCXT615	201-260	SCXT605 SCXT609 +
70	SCXT125 SCXT115	1 1/2 HP MOTOR		5-7 8-11	SCXT725 SCXT625	141-191	SCXT305 SCXT309	71-74	SCXT615 SCXT625	261-400	SCXT505
85	SCXT115 SCXT125	4-5 6-8	SCXT525 SCXT425	12-19 20-32	SCXT525 SCXT425	192-200	SCXT205 SCXT309	75-80	SCXT515 SCXT525	50 HP MOTOR	
115	SCXT115 SCXT109	9-12 13-23	SCXT325 SCXT225	33-46	SCXT325 SCXT315	201-400	SCXT205 SCXT309	81-115	SCXT515 + SCXT509 +	65-70	SCXT725 + SCXT715 +
140	SCXT105 SCXT109 SCXT115	24-70	SCXT125 SCXT115	47-70	SCXT225 SCXT215	15 HP MOTOR		116-119	SCXT505 SCXT509 + SCXT515 +	71-75	SCXT715 + SCXT725 +
200	SCXT105 SCXT109	71-85	SCXT115 SCXT125	71-85	SCXT215 SCXT225	17-25 26-39	SCXT725 SCXT625 SCXT615	120-132	SCXT415 + SCXT505 SCXT509 +	105-115	SCXT615 + SCXT709 +
400	SCXT105	86-115	SCXT115 SCXT109	86-92	SCXT109 SCXT215	40-66	SCXT525 SCXT515	133-140	SCXT409 + SCXT415 + SCXT505	116-125	SCXT609 + SCXT615 + SCXT705
1/2 HP MOTOR		116-140	SCXT105 SCXT109 SCXT115	93-115	SCXT115 SCXT109	67-70	SCXT425 SCXT415	141-193	SCXT409 + SCXT505	126-178	SCXT609 + SCXT705
6	SCXT225	141-200	SCXT105 SCXT109	116-119	SCXT109 SCXT115	71-85	SCXT415 SCXT425	194-200	SCXT405 SCXT409 +	179-200	SCXT605 SCXT609 +
70	SCXT125 SCXT115	201-400	SCXT105	120-140	SCXT105 SCXT109 SCXT115	86-109	SCXT415 SCXT409	201-400	SCXT405	201-400	SCXT605
85	SCXT115 SCXT125	2 HP MOTOR		141-200	SCXT105 SCXT109	110-115	SCXT409 SCXT415	30 HP MOTOR		60 HP MOTOR	
115	SCXT115 SCXT109	5-7 8-11	SCXT525 SCXT425	141-200	SCXT105 SCXT109	116-140	SCXT315 + SCXT405 SCXT409 +	34-56	SCXT725 SCXT715	80-115	SCXT715 + SCXT709 +
140	SCXT105 SCXT109 SCXT115	12-17	SCXT325	201-400	SCXT105	141-200	SCXT405 SCXT409 +	57-70	SCXT625 + SCXT615 +	116-120	SCXT709 + SCXT715 +
200	SCXT105 SCXT109	18-32	SCXT225 SCXT215	8-11	SCXT725	201-400	SCXT305	71-80	SCXT615 + SCXT625 +	121-145	SCXT705 SCXT709 +
400	SCXT105	33-70	SCXT125 SCXT115	12-18	SCXT625	20 HP MOTOR		81-91	SCXT615 + SCXT609	146-162	SCXT609 + SCXT705
3/4 HP MOTOR		71-85	SCXT115 SCXT125	19-29	SCXT525	22-34	SCXT725 SCXT715	92-93	SCXT615 + SCXT509 +	163-200	SCXT705 SCXT709 +
4-5	SCXT325	86-115	SCXT115 SCXT109	30-49	SCXT425 SCXT415	35-57	SCXT625 SCXT615	94-115	SCXT515 + SCXT509 +	201-285	SCXT705
10	SCXT225	116-140	SCXT105 SCXT109 SCXT115	50-70	SCXT325 SCXT315	58-70	SCXT525 SCXT515	116-125	SCXT509 + SCXT515 + SCXT605	286-400	SCXT605
17	SCXT125 SCXT115	141-200	SCXT105 SCXT109	71-74	SCXT315 SCXT325	71-80	SCXT515 SCXT525	75 HP MOTOR		104-115	SCXT715 + SCXT709 +
85	SCXT115 SCXT125	201-400	SCXT105	75-85	SCXT215 SCXT225	81-85	SCXT515 SCXT525	126-145	SCXT609 + SCXT605	116-120	SCXT709 + SCXT715 +
115	SCXT115 SCXT109	3 HP MOTOR		86-115	SCXT215 SCXT209	86-92	SCXT515 SCXT509	146-165	SCXT505 SCXT509 +	121-167	SCXT709 + SCXT805
140	SCXT105 SCXT109 SCXT115	5-6 7-10	SCXT625 SCXT525	116-140	SCXT205 SCXT209 SCXT215	93-98	SCXT415 + SCXT509	166-200	SCXT409 + SCXT505	168-188	SCXT705 SCXT709 +
200	SCXT105 SCXT109	11-18	SCXT425	141-200	SCXT205 SCXT209			201-281	SCXT505	189-400	SCXT705
400	SCXT105	19-26	SCXT325	201-231	SCXT205			282-400	SCXT405		
1 HP MOTOR		27-51	SCXT225 SCXT215	232-400	SCXT105						
4-5	SCXT425										

Fan cooling required—See page G5-40.

a: See page G6-6 for Class III Applications.  
b: Below 10 RPM raise oil level to highest oil level plug (P). See Page G5-44.



## Class III Applications for Selection of Screw Conveyor Drives

Use the table below for applications listed as Class III on page G6-4. the maximum value of starting and memetary peak loads should not exceed 4 × Motor HP Rating for Class III

Applications. If it exceeds this amount, it should be divided by 4 and the result used in the table below instead of Motor HP Rating.

**Table 14—Class III—Applications for Selection of Screw Conveyor Drives**

Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.	Output RPM	Size No.
<b>1/4 HP MOTOR</b>		<b>3/4 HP MOTOR (Contd.)</b>		<b>1 1/2 HP MOTOR (Contd.)</b>		<b>5 HP MOTOR</b>		<b>7 1/2 HP MOTOR (Contd.)</b>		<b>15 HP MOTOR (Contd.)</b>	
4-6	SCXT225	9-12	SCXT325	141-200	SCXT105	11-15	SCXT725	93-115	SCXT415	137-200	SCXT509 +
7-70	SCXT125	13-23	SCXT225		SCXT109	16-25	SCXT625		SCXT509		SCXT605
	SCXT115	24-70	SCXT125	201-400	SCXT105	26-39	SCXT525	116-140	SCXT409	201-260	SCXT605
71-85	SCXT115		SCXT115				SCXT515		SCXT415	261-400	SCXT505
	SCXT125	71-85	SCXT115	<b>2 HP MOTOR</b>		40-70	SCXT425		SCXT505		
86-89	SCXT115		SCXT125	4-5	SCXT725		SCXT415	141	SCXT409	<b>25 HP MOTOR</b>	
90-115	SCXT109	86-115	SCXT115	6-8	SCXT625	71-85	SCXT315		SCXT505	65-70	SCXT725
			SCXT109	9-15	SCXT525		SCXT325	142-166	SCXT405		SCXT715
116-140	SCXT105	116-140	SCXT105	16-25	SCXT425	86-103	SCXT315		SCXT409	71-75	SCXT715
	SCXT109		SCXT109	26-36	SCXT325		SCXT309	167-200	SCXT309		SCXT725
	SCXT115		SCXT115		SCXT315	104-115	SCXT215		SCXT405	76-89	SCXT715
141-200	SCXT105	141-200	SCXT105	37-71	SCXT225		SCXT209	201-400	SCXT405	90-104	SCXT715
	SCXT109		SCXT109		SCXT215	116-140	SCXT209	<b>15 HP MOTOR</b>			SCXT709
201-400	SCXT105	201-400	SCXT105	72-85	SCXT115		SCXT305		SCXT725	105-113	SCXT615 +
					SCXT125			34-56	SCXT715		SCXT709
<b>1/4 HP MOTOR</b>		<b>1 HP MOTOR</b>		86-115	SCXT115	141-190	SCXT209	57-70	SCXT625	114-115	SCXT615 +
5-9	SCXT225	5-7	SCXT525		SCXT109		SCXT305		SCXT615		SCXT609
10-70	SCXT125	6-11	SCXT425	116-140	SCXT105	191-200	SCXT205	71-80	SCXT615	116-125	SCXT609 +
	SCXT115	12-17	SCXT325		SCXT109		SCXT209		SCXT625		SCXT615 +
71-85	SCXT115	18-32	SCXT225	141-200	SCXT105	201-400	SCXT205	81-93	SCXT615	126-179	SCXT609 +
	SCXT125		SCXT115		SCXT109			94-115	SCXT515		SCXT705
86-115	SCXT109	33-70	SCXT125	201-400	SCXT105	<b>7 1/2 HP MOTOR</b>			SCXT509	180-182	SCXT605
	SCXT115		SCXT115		SCXT109	17-24	SCXT725	116-125	SCXT509		SCXT609
116-140	SCXT105	71-85	SCXT115			25-41	SCXT625		SCXT515	183-200	SCXT509 +
	SCXT109		SCXT109	<b>3 HP MOTOR</b>			SCXT615	126-145	SCXT605		SCXT605
	SCXT115	86-115	SCXT115	6-8	SCXT725	42-66	SCXT525		SCXT509	201-400	SCXT605
141-200	SCXT105	116-140	SCXT105	9-14	SCXT625		SCXT515	146-165	SCXT505	<b>30 HP MOTOR</b>	
	SCXT109		SCXT109	15-23	SCXT525	67-70	SCXT425		SCXT509	80-89	SCXT715
201-400	SCXT105		SCXT115	24-39	SCXT425		SCXT415	166-200	SCXT409 +	90-115	SCXT709 +
		141-200	SCXT105		SCXT415	71-85	SCXT415		SCXT505		SCXT715 +
4-5	SCXT425	201-400	SCXT105	40-57	SCXT325		SCXT425	201-280	SCXT505	116-120	SCXT705
6-7	SCXT325			58-70	SCXT225	86-115	SCXT415	281-400	SCXT405		SCXT709 +
8-15	SCXT225	<b>1 1/2 HP MOTOR</b>			SCXT215	116-140	SCXT309				SCXT715 +
16-70	SCXT115	5-6	SCXT625		SCXT215		SCXT315	<b>20 HP MOTOR</b>		121-145	SCXT705
	SCXT115	7-10	SCXT525	71-85	SCXT215		SCXT405	49-70	SCXT725		SCXT709 +
71-85	SCXT115	11-18	SCXT425	86-113	SCXT215	141-199	SCXT309		SCXT715	146-200	SCXT609 +
	SCXT125	19-26	SCXT325		SCXT209		SCXT405	71-75	SCXT715		SCXT705
86-115	SCXT109	27-51	SCXT225	114-115	SCXT115	200-400	SCXT305		SCXT725	201-285	SCXT705
	SCXT115		SCXT215		SCXT109			76-79	SCXT715		SCXT605
116-140	SCXT105	52-70	SCXT125	116-140	SCXT109	<b>10 HP MOTOR</b>				286-400	SCXT605
	SCXT109		SCXT115		SCXT115	22-34	SCXT725	80-111	SCXT615	<b>40 HP MOTOR</b>	
	SCXT115		SCXT115		SCXT205		SCXT715		SCXT609	116-120	SCXT709 +
141-200	SCXT105	71-85	SCXT115	141-155	SCXT109	35-57	SCXT625	112-115	SCXT615 +		SCXT715 +
	SCXT109		SCXT125		SCXT205		SCXT615		SCXT609	121-178	SCXT709 +
201-400	SCXT105	86-115	SCXT115	156-200	SCXT105	58-70	SCXT525	116-125	SCXT605	179-200	SCXT705
			SCXT109		SCXT109		SCXT515		SCXT615 +		SCXT709 +
<b>3/4 HP MOTOR</b>		116-140	SCXT105	201-400	SCXT105	71-80	SCXT515	126-136	SCXT609	201-400	SCXT705
4-5	SCXT525		SCXT109				SCXT525				
6-8	SCXT425		SCXT115			81-92	SCXT515				

+ Fan cooling required—See page G5-40.

Note: Below 10 RPM raise oil level to highest oil level plug (P). See page G5-44.

## Thrust Capacity of Screw Conveyor Drives

The screw conveyor drive uses large tapered roller bearings which take thrust in either direction from the screw

conveyor. This eliminates the need for a thrust bearing commonly used.

**Table 15—Thrust Capacity of Screw Conveyor Drives (Pounds)**

Drive No.	Conveyor RPM						
	80	100	120	140	160	180	200
SCXT109	3986	3765	3588	3434	3303	3192	3092
SCXT209	5389	5025	4742	4505	4304	4138	3990
SCXT309	4826	4576	4383	4153	3994	3863	3731
SCXT409	6000	6000	6000	6000	5959	5731	5528
SCXT509	6000	6000	6000	6000	6000	6000	6000
SCXT609	6000	6000	6000	6000	6000	6000	6000
SCXT709	4863	4527	4244	3959	3713	3520	3335

Drive No.	Conveyor RPM					
	25	50	75	100	125	140
SCXT115	6000	4840	4220	3820	3540	3414
SCXT215	6000	6000	5440	4920	4560	4380
SCXT315	6000	6000	5230	4720	4350	4180
SCXT415	6000	6000	6000	6000	6000	6000
SCXT515	6000	6000	6000	6000	6000	....
SCXT615	6000	6000	6000	6000	6000	....
SCXT715†	6000	6000	5220	4530	....	....

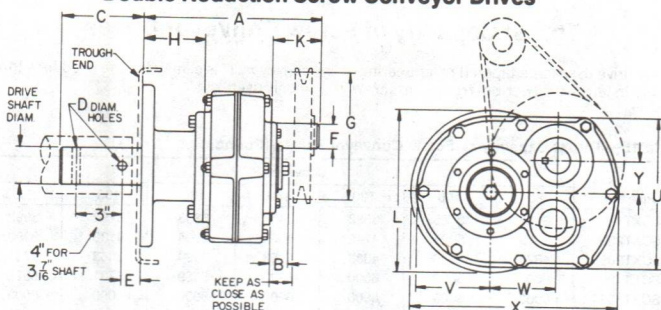
Drive No.	Conveyor RPM				
	25	50	75	80	85
SCXT125	6000	4840	4220	4130	4040
SCXT225	6000	6000	5440	5320	5000
SCXT325	6000	6000	5230	5110	6000
SCXT425	6000	6000	6000	6000	6000
SCXT525	6000	6000	6000	6000	....
SCXT625	6000	6000	6000	6000	....
SCXT725	6000	6000	5220	....	....

Drive No.	Conveyor RPM						
	100	150	200	250	300	350	400
SCXT105	6000	5500	5060	4730	4520	4340	4200
SCXT205	5310	4760	4390	4160	3970	3810	3680
SCXT305	5670	5090	4770	4470	4290	4150	4020
SCXT405	6000	6000	6000	5720	5460	5310	5170
SCXT505	6000	6000	6000	6000	6000	6000	6000
SCXT605	6000	6000	6000	6000	6000	6000	6000
SCXT705	5860	5500	4810	4710	4830	4980	4900

† Actual maximum output speed for SCXT715 drive is 116 rpm.



# Double Reduction Screw Conveyor Drives



Double Reduction Screw Conveyor Drives

Basic Drive No.	Drive Shaft Diam.	To Fit Screw Diam.	Reducer Part No. Series			Parts When Ordering Separately										Adapter Assy		
			9	15	25	Wt.	CEMA Drive Shaft						Size	Part No.	Wt.	Size	Part No.	Wt.
							Size	Part No.	Wt.	C	D	E						
SCXT109	1 1/2	6, 9	241480	351163	351164	46	C1x1 1/2	351094	7.2	6	33/64	2 1/8	C1A	351086	17	C1A	351086	17
SCXT115	2	9, 12				46	C1x2	351095	9.1	6	41/64	2 1/8	C1B	351067	22	C1B	351067	22
SCXT125	2 7/16	12, 14, 12 thru 20				46	C1x2 7/16	351096	12.5	6 11/16	41/64	2 3/4	AC1B+	356168	22	AC1B+	356168	22
SCXT209	1 1/2	6, 9	242480	352065	352066	58	C2x1 1/2	352090	11.4	6	33/64	2 1/8	C2A	352052	20	C2A	352052	20
SCXT215	2	9, 12				58	C2x2	352091	13.8	6	41/64	2 1/8	C2B	352053	25	C2B	352053	25
SCXT225	2 7/16	12, 14, 12 thru 20				58	C2x2 7/16	352092	17.3	6 11/16	41/64	2 3/4	AC2B+	356112	25	AC2B+	356112	25
SCXT309	1 1/2	9	243480	353065	353066	90	C3x1 1/2	353042	13.5	6	33/64	2 1/8	C3	353047	27	C3	353047	27
SCXT315	2	9, 12				90	C3x2	353043	16.0	6	41/64	2 1/8	AC3B+	356163	27	AC3B+	356163	27
SCXT325	2 7/16	12, 14, 12 thru 20				90	C3x2 7/16	353044	19.5	6 11/16	41/64	2 3/4	AC3B+	356163	27	AC3B+	356163	27
SCXT409	1 1/2	9	244483	354065	354066	113	C4x1 1/2	354116	19.0	6	33/64	2 1/8	C4	354121	31	C4	354121	31
SCXT415	2	9, 12				113	C4x2	354117	20.8	6	41/64	2 1/8	AC4+	356149	31	AC4+	356149	31
SCXT425	2 7/16	12, 14, 12 thru 20				113	C4x2 7/16	354118	24.3	6 11/16	41/64	2 3/4	AC4+	356149	31	AC4+	356149	31
SCXT509	1 1/2	9	355150	355151	355152	165	C5x2	355076	29.2	6 7/8	49/64	2 7/8	C5	355072	43	C5	355072	43
SCXT515	2	9, 12				165	C5x2 1/2	355077	33.0	6 11/16	49/64	2 3/4	AC5+	356158	43	AC5+	356158	43
SCXT525	2 7/16	12, 14, 12 thru 20				165	C5x3	355078	37.9	6 7/8	49/64	2 7/8	AC5+	356158	43	AC5+	356158	43
SCXT609	1 1/2	9	246480	356057	356058	225	C6x2 7/16	356042	47.7	6 11/16	41/64	2 3/4	C6	356055	56	C6	356055	56
SCXT615	2	9, 12				225	C6x3	356043	52.7	6 7/8	49/64	2 7/8	AC6	356154	56	AC6	356154	56
SCXT625	2 7/16	12, 14, 12 thru 20				225	C6x3 7/16	356044	63.0	6 7/8	49/64	2 3/4	AC6	356154	56	AC6	356154	56
SCXT709	1 1/2	9	247480	356256	356257	390	C7x2 7/16	356182	65.0	6 11/16	41/64	2 3/4	C7	356187	72	C7	356187	72
SCXT715	2	9, 12				390	C7x3	356183	70.0	6 7/8	49/64	2 7/8	AC7+	356192	72	AC7+	356192	72
SCXT725	2 7/16	12, 14, 12 thru 20				390	C7x3 7/16	356184	80.3	6 7/8	49/64	2 3/4	AC7+	356192	72	AC7+	356192	72

Drive No.	Gear Ratio			Max. RPM of Shaft												A	B	F
	Series			Input Series			Driven Series			9	15	25	200	140	85			
				9	15	25	9	15	25									
	9	15	25	9	15	25	9	15	25									
SCXT1	9.44	15.35	25.64	1888	2144	2179	200	140	85	119/32	127/64	3/4						
SCXT2	9.25	14.10	23.46	1850	1974	1994	200	140	85	121/32	127/64	1 1/8						
SCXT3	8.914	14.88	24.71	1783	2083	2160	200	140	85	139 1/8	19 1/8	1 1/4						
SCXT4	9.678	15.13	24.38	1936	2118	2072	200	140	85	159 1/8	11 3/32	1 1/8						
SCXT5	8.955	15.40	25.56	1791	1925	2044	200	125	80	161 1/8	19 1/8	1 1/8						
SCXT6	9.208	15.33	25.13	1842	1916	2010	200	125	80	243/64	24 1/8	2 1/8						
SCXT7	9.619	15.23	24.59	1923	1827	1844	200	120	75	20 3/8	25 1/8	2 1/8						
Drive No.	G			G	H	K	L	U	V	W	X	Y						
	Nominal Ratio																	
	9	15	25															
SCXT1	4.0	3.0	3.0	3 7/32	3 3/8	3 1/2	7 1/8	3 3/4	3 3/16	3 3/8	3 1/2	1 23/32						
SCXT2	5.0	3.0	3.0	3 3/8	3 1/2	3 1/2	8 3/8	4 3/32	3 9/16	4 1/8	4 1/8	2 3/16						
SCXT3	5.0	4.0	4.0	3 11/16	3 3/8	3 3/8	11 3/8	9 1/4	4 7/32	4 1/16	4 1/8	2 1/8						
SCXT4	6.0	4.6	4.6	4	4 1/16	4 1/16	11 3/8	10 3/8	5 1/2	4 25/32	4 25/32	2 3/8						
SCXT5	6.5	5.4	5.4	4 1/4	5 1/16	5 1/16	11 3/8	13 1/8	6 1/16	5 3/16	5 3/16	3 3/8						
SCXT6	7.0	6.2	6.2	5 1/2	6 7/8	6 7/8	13 1/8	15 1/8	7 1/8	6 7/8	6 7/8	4 3/32						
SCXT7	7.0	6.2	6.2	6 5/16	6 5/16	6 5/16	13 1/8	18 1/8	9 3/8	8 1/8	8 1/8	5 3/16						

Complete drive consists of reducer, CEMA drive shaft and key and adapter assembly. Drive is shipped unassembled. Order per catalog numbers.

• CEMA drive shaft and key furnished unless otherwise specified. Short series shafts available at same price. See page G6-11. Stainless steel CEMA shafts available at extra cost. Consult Reliance for price and delivery.

▲ Includes adapter, necessary mounting bolts and seal retainer. Both lip type and braided type seals included for customer's choice of application. Order by number, description and part number. Example: C4 Adapter Assembly, 354121.

Pitch diameter of driven sheave should not be less than "G" to prevent overloading reducer bearings.

1 Order reducer by using basic number shown in left hand column and part number. Example: SCXT415 Screw Conveyor Drive Reducer 354065.

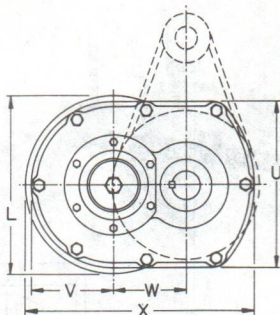
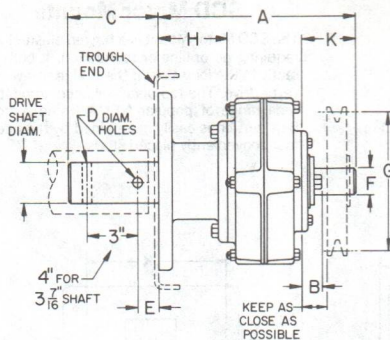
♥ L = 7", X = 9 1/8" when using a C1A adapter; L = 11 3/8", X = 11 7/8" when using a C1B adapter.

♦ L = 7", X = 11 3/32" when using a C2A adapter; L = 11 3/8", X = 13" when using a C2B adapter.

+ AC adjustable packing adapter furnished at extra cost when specified. C-style adapter is standard. See page G6-13 for description.

▲ Pitch diameter of driven sheave should not be less than "G" to prevent overloading reducer bearings.

# Single Reduction Screw Conveyor Drives



## Single Reduction Screw Conveyor Drives

Basic Drive No.	Drive Shaft Diam.	To Fit Screw Diam.	Parts When Ordering Separately											
			Reducer ⚙		CEMA Drive Shaft ★							Adapter Assy. ▲		
			Part No.	Wt.	Size	Part No.	Wt.	C	D	E	Size	Part No.	Wt.	
SCXT105	1 1/2	6, 9	351165	41	C1 x 1 1/2	351094	7.2	6	33/64	2 1/8	C1A	351086	17	
	2	9, 12		C1 x 2	351095	9.1	6	41/64	2 1/8					
	2 7/16	12, 14		C1 x 2 7/16	351096	12.5	6 11/16	41/64	2 3/4	C1B	351087	22		
	3	12 thru 20		C1 x 3	351097	17.4	6 7/8	49/64	2 7/8	AC18+	356168	22		
SCXT205	1 1/2	6, 9	352218	53	C2 x 1 1/2	352090	11.4	6	33/64	2 1/8	C2A	352052	20	
	2	9, 12		C2 x 2	352091	13.8	6	41/64	2 1/8					
	2 7/16	12, 14		C2 x 2 7/16	352092	17.3	6 11/16	41/64	2 3/4	C2B	352053	25		
	3	12 thru 20		C2 x 3	352093	22.1	6 7/8	49/64	2 7/8	AC28+	356112	25		
SCXT305	1 1/2	9	353225	79	C3 x 1 1/2	353042	13.5	6	33/64	2 1/8				
	2	9, 12		C3 x 2	353043	16.0	6	41/64	2 1/8					
	2 7/16	12, 14		C3 x 2 7/16	353044	19.5	6 11/16	41/64	2 3/4	C3	353047	27		
	3	12 thru 20		C3 x 3	353045	26.0	6 7/8	49/64	2 7/8	AC3+	356163	27		
SCXT405	1 1/2	9	354425	101	C4 x 1 1/2	354116	19.0	6	33/64	2 1/8				
	2	9, 12		C4 x 2	354117	20.8	6	41/64	2 1/8					
	2 7/16	12, 14		C4 x 2 7/16	354118	24.3	6 11/16	41/64	2 3/4	C4	354121	31		
	3	12 thru 20		C4 x 3	354119	29.2	6 7/8	49/64	2 7/8	AC4+	356149	31		
SCXT505	2	9, 12	355218	160	C5 x 2	355076	29.4	6	41/64	2 1/8				
	2 7/16	12, 14		C5 x 2 7/16	355077	33.0	6 11/16	41/64	2 3/4	C5	355072	43		
	3	12 thru 20		C5 x 3	355078	37.9	6 7/8	49/64	2 7/8	AC5+	356158	43		
	3 7/16	18 thru 24		C5 x 3 7/16	355079	48.3	9 1/8	57/64	3 7/8					
SCXT605	2 7/16	12, 14	356285	210	C6 x 2 7/16	356042	47.7	6 11/16	41/64	2 3/4				
	3	12 thru 20		C6 x 3	356043	52.7	6 7/8	49/64	2 7/8	C6	356055	56		
	3 7/16	18 thru 24		C6 x 3 7/16	356044	63.0	9 1/8	57/64	3 7/8	AC6+	356154	56		
SCXT705	2 7/16	12, 14	356295	350	C7 x 2 7/16	356182	65.0	6 11/16	41/64	2 3/4				
	3	12 thru 20		C7 x 3	356183	70.0	6 7/8	49/64	2 7/8	C7	356187	72		
	3 7/16	18 thru 24		C7 x 3 7/16	356184	80.3	9 1/8	57/64	3 7/8	AC7+	356192	72		
Basic Drive No.	Gear Ratio	Max. RPM of Shaft		A	B	F	G	H	K	L	U	V	W	X
		Input	Driven											
SCXT105	5.62	2246	400	117/32	127/64	1 1/8	4.0	37/32	3 7/16	♥	7 1/8	3 3/4	3 17/64	♥
SCXT205	5.29	2116	400	127/32	127/64	1 1/8	3.0	3 7/16	3 3/32	♦	8 3/8	4 1/32	3 5/64	♦
SCXT305	5.60	2240	400	13 1/16	1 9/16	1 5/8	6.0	3 11/16	3 3/4	1 13/16	9 1/8	4 27/32	4 9/32	1 32 3/32
SCXT405	5.65	2260	400	157/32	1 7/32	1 5/16	7.0	4 1/2	4 1/32	1 13/16	10 3/8	5 1/2	4 7/8	1 5 1/16
SCXT505	5.67	2268	400	16 1/8	1 5/8	2 1/16	9.0	4 1/4	5 1/8	1 13/16	13 1/8	6 1/16	5 55/64	1 8 1/16
SCXT605	5.67	2267	400	18 1/16	2 3/32	2 1/16	6.5	5 1/2	6 1/16	1 13/16	15 1/8	7 1/16	6 7/64	2 1 1/16
SCXT705	5.36	2143	400	20 1/8	2 5/8	2 1/16	7.5	6 1/8	6 1/16	1 13/16	18 1/8	9 1/8	8 1/16	2 5 1/16

† Complete drive consists of reducer, CEMA drive shaft and key and adapter assembly. Drive is shipped unassembled. Order per catalog numbers.

• CEMA drive shaft and key furnished unless otherwise specified. Short series shafts available at same price, see page G6-11. Stainless steel CEMA shafts available at extra cost. Consult Reliance for price and delivery.

▲ Includes adapter, necessary mounting bolts and seal retainer. Both lip type and braided type seals included for customer's choice of application. Order by number, description and part number. Example: C4 Adapter Assembly, 354121.

‡ Order reducer by using basic number shown in left hand column and part number.

Example: SCXT405 Screw Conveyor Drive Reducer 354425.

▲ Pitch diameter of driven sheave should not be less than "G" to prevent overloading reducer bearings.

♥ L = 7", X = 9 1/16" when using a C1A adapter; L = 11 3/8", X = 11 7/8" when using a C1B adapter.

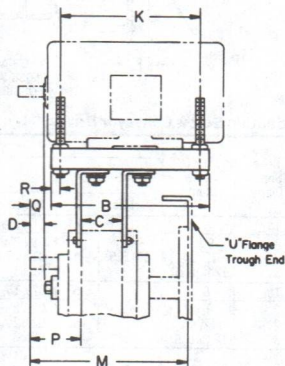
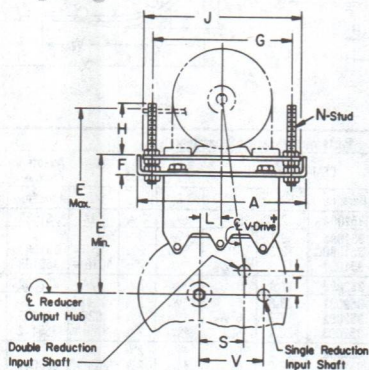
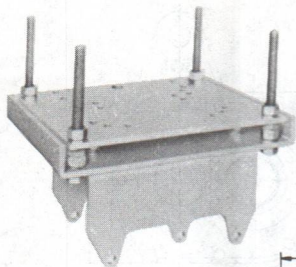
♦ L = 7", X = 11 1/32" when using a C2A adapter; L = 11 3/8", X = 13" when using a C2B adapter.

+ AC adjustable packing adapter furnished at extra cost when specified. C-style adapter is standard. See page G6-13 for description.



## SCD Motor Mounts

The SCD Motor Mount is a rugged all-steel unit requiring no drilling or foundation. It bolts directly to the long side of the Dodge screw conveyor drive. The top plate will accommodate a wide range of popular NEMA frame motors. Belt tension is easily maintained by the use of four conveniently placed studs.



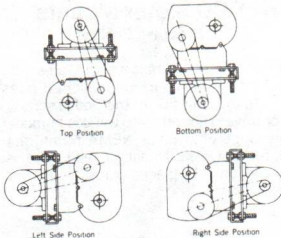
### SCD Motor Mounts

Mtr. Mt. No.	Reducer Size	Nominal Ratio	For Screw Diameter	For NEMA Motor Frames ★	Part No.	Wt. (lbs.)	A	B	C	D	E ♦		F	G	H
											Min.	Max.			
M112	SCXT1	5, 9, 15, 25	SEE TABLE 17 ON OPPOSITE PAGE	56 thru 215	351069	42	14 <sup>5</sup> / <sub>8</sub>	11	3 <sup>3</sup> / <sub>8</sub>	1 <sup>6</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>32</sub>	14 <sup>19</sup> / <sub>32</sub>	11 <sup>9</sup> / <sub>32</sub>	12	4 <sup>55</sup> / <sub>64</sub>
M214	SCXT2	5, 9, 15, 25		56 thru 215	352069	43	14 <sup>5</sup> / <sub>8</sub>	11	3 <sup>3</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>64</sub>	12 <sup>19</sup> / <sub>32</sub>	16 <sup>3</sup> / <sub>32</sub>	11 <sup>9</sup> / <sub>32</sub>	12	4 <sup>55</sup> / <sub>64</sub>
M316	SCXT3	5, 9, 15, 25		56 thru 215	353069	44	14 <sup>5</sup> / <sub>8</sub>	11	4 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>32</sub>	13 <sup>27</sup> / <sub>32</sub>	17 <sup>11</sup> / <sub>32</sub>	11 <sup>9</sup> / <sub>32</sub>	12	4 <sup>55</sup> / <sub>64</sub>
M418	SCXT4	5, 9, 15, 25		143 thru 286	354069	86	18 <sup>5</sup> / <sub>8</sub>	17	4 <sup>5</sup> / <sub>8</sub>	3 <sup>13</sup> / <sub>32</sub>	15 <sup>9</sup> / <sub>32</sub>	19 <sup>25</sup> / <sub>32</sub>	12 <sup>5</sup> / <sub>32</sub>	15 <sup>1</sup> / <sub>2</sub>	5 <sup>37</sup> / <sub>64</sub>
M518	SCXT5	5, 9, 15, 25		143 thru 286	355169	82	18 <sup>5</sup> / <sub>8</sub>	17	4 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	15 <sup>9</sup> / <sub>32</sub>	19 <sup>25</sup> / <sub>32</sub>	12 <sup>5</sup> / <sub>32</sub>	15 <sup>1</sup> / <sub>2</sub>	5 <sup>37</sup> / <sub>64</sub>
M620	SCXT6	5, 9, 15, 25		143 thru 326	356069	105	20 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>29</sup> / <sub>64</sub>	16 <sup>21</sup> / <sub>32</sub>	21 <sup>9</sup> / <sub>32</sub>	12 <sup>7</sup> / <sub>32</sub>	17 <sup>1</sup> / <sub>2</sub>	5 <sup>33</sup> / <sub>64</sub>
M720	SCXT7	5, 9, 15, 25		143 thru 365	356269	106	22 <sup>1</sup> / <sub>2</sub>	19	4 <sup>3</sup> / <sub>4</sub>	3 <sup>29</sup> / <sub>64</sub>	16 <sup>21</sup> / <sub>32</sub>	21 <sup>9</sup> / <sub>32</sub>	12 <sup>7</sup> / <sub>32</sub>	19 <sup>1</sup> / <sub>4</sub>	5 <sup>33</sup> / <sub>64</sub>
Mtr. Mt. No.	J	K	L	M	N-Stud		P	Q	R	S	T	V			
					Dia.	Lgth.									
M112	13 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	11 <sup>9</sup> / <sub>32</sub>	5 <sup>8</sup> / <sub>16</sub>	7	4 <sup>1</sup> / <sub>32</sub>	2 <sup>29</sup> / <sub>64</sub>	7 <sup>8</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>64</sub>			
M214	13 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>32</sub>	12 <sup>1</sup> / <sub>32</sub>	5 <sup>8</sup> / <sub>16</sub>	7	4 <sup>11</sup> / <sub>32</sub>	2 <sup>29</sup> / <sub>64</sub>	7 <sup>8</sup> / <sub>16</sub>	3 <sup>49</sup> / <sub>64</sub>	2 <sup>9</sup> / <sub>64</sub>	3 <sup>55</sup> / <sub>64</sub>			
M316	13 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>16</sub>	5 <sup>8</sup> / <sub>16</sub>	7	4 <sup>7</sup> / <sub>16</sub>	2 <sup>19</sup> / <sub>32</sub>	7 <sup>8</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>64</sub>	2 <sup>21</sup> / <sub>64</sub>	4 <sup>3</sup> / <sub>32</sub>			
M418	17 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	15 <sup>5</sup> / <sub>16</sub>	3 <sup>4</sup> / <sub>8</sub>	8	5 <sup>9</sup> / <sub>16</sub>	3 <sup>29</sup> / <sub>32</sub>	1	4 <sup>25</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>4</sub>	4 <sup>7</sup> / <sub>8</sub>			
M518	17 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	16 <sup>11</sup> / <sub>16</sub>	3 <sup>4</sup> / <sub>8</sub>	8	6 <sup>11</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	1	5 <sup>43</sup> / <sub>64</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>55</sup> / <sub>64</sub>			
M620	19 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>2</sub>	3 <sup>23</sup> / <sub>32</sub>	18 <sup>1</sup> / <sub>2</sub>	3 <sup>4</sup> / <sub>8</sub>	8	7 <sup>5</sup> / <sub>16</sub>	4 <sup>51</sup> / <sub>64</sub>	1	6 <sup>47</sup> / <sub>64</sub>	4 <sup>3</sup> / <sub>32</sub>	6 <sup>57</sup> / <sub>64</sub>			
M720	19 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>16</sub>	20 <sup>13</sup> / <sub>32</sub>	3 <sup>4</sup> / <sub>8</sub>	8	7 <sup>13</sup> / <sub>16</sub>	4 <sup>51</sup> / <sub>64</sub>	1	8 <sup>1</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>64</sub>	8 <sup>5</sup> / <sub>16</sub>			

\* Select motor to suit hp requirements. See V-belt drive center distances in Table 17, page G6-11.

♦ Provides for V-belt adjustment.

Note: Necessary mounting bolts are included.



**Table 16—SCD Motor Mount Application Guide**

Motor Mount No.	Used on Troughs w/Screw Diameters:	
	Top, Right and Left Side Positions ▲	Bottom Position ▲
M112	6, 9, 12"	6, 9"
M214	6, 9, 12, 14"	6, 9, 12"
M316	6, 9, 12, 14, 16"	6, 9, 12, 14"
M418, M518	9, 12, 14, 16, 18"	9, 12, 14, 16"
M620, M720	12, 14, 16, 18, 20"	12, 14, 16, 18"

**Note**—Mounts to fit troughs w/screws up thru 24" diameter are available on special order—consult factory.  
▲ See diagram at left.

**Table 17—V-Belt Drive Center Distances for SCD Motor Mounts**

For Mtr. Mt. No.	For Screw Diameter	Reducer Size	Nominal Ratio	Center Distance for Various NEMA Motor Frames															
				56, 143T, 145T		182, 182T 184, 184T		213, 213T 215, 215T		254U, 254T 256U, 256T		284U, 284T 286U, 286T		324U, 324T 326U, 326T		364, 365T			
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
M112	6, 9, 12"	SCXT1	9, 15, 25	13.8	17.3	14.8	18.3	15.5	19.0	—	—	—	—	—	—	—	—		
		SCXT105	5	15.7	19.2	16.7	20.2	17.4	20.9	—	—	—	—	—	—	—	—		
M214	6, 9, 12, 14"	SCXT2	9, 15, 25	15.2	18.7	16.2	19.7	16.9	20.4	—	—	—	—	—	—	—	—		
		SCXT205	5	17.3	20.8	18.3	21.8	19.0	22.5	—	—	—	—	—	—	—	—		
M316	6, 9, 12, 14, 16"	SCXT3	9, 15, 25	16.2	19.7	17.1	20.6	17.9	21.4	—	—	—	—	—	—	—	—		
		SCXT305	5	18.5	21.9	19.5	23.0	20.2	23.7	—	—	—	—	—	—	—	—		
M418	9, 12, 14, 16, 18"	SCXT4	9, 15, 25	17.2	21.7	18.2	22.7	19.0	23.5	20.0	24.5	20.7	25.2	—	—	—	—		
		SCXT405	5	20.0	24.5	21.0	25.5	21.7	26.2	22.7	27.2	23.4	27.9	—	—	—	—		
M518	9, 12, 14, 16, 18"	SCXT5	9, 15, 25	17.0	21.5	18.0	22.5	18.7	23.2	19.7	24.2	20.4	24.9	—	—	—	—		
		SCXT505	5	20.0	24.5	21.0	25.5	21.8	26.3	22.7	27.2	23.5	28.0	—	—	—	—		
M620	12, 14, 16, 18, 20"	SCXT6	9, 15, 25	17.4	21.9	18.4	22.9	19.1	23.6	20.1	24.6	20.8	25.3	21.8	26.3	—	—		
		SCXT605	5	21.4	25.9	22.4	26.9	23.2	27.7	24.2	28.7	24.9	29.4	25.9	30.4	—	—		
M720	12, 14, 16, 18, 20"	SCXT7	9, 15, 25	17.3	21.8	18.3	22.8	19.0	23.5	20.0	24.5	20.7	25.2	21.7	26.2	22.2	26.4		
		SCXT705	5	22.3	26.8	23.3	27.8	24.0	28.5	25.2	29.7	25.7	30.2	26.7	31.2	27.0	31.3		

## Short Series Shafts for Screw Conveyor Drives

CEMA drive shafts, shown in the tables on preceding pages, are furnished with each Screw Conveyor Drive unless otherwise specified.

Conversion of a screw conveyor (using an old type screw conveyor drive) to use the new Screw Conveyor Drive can be

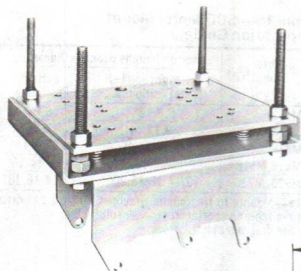
accomplished by the use of a short series shaft, shown below, and a new CEMA trough end plate shown on page G6-14.

Short series shafts may also be used where the application requires the screw to run within 1/8" of the trough end plates.

### Short Series Drive Shafts for Screw Conveyor Drives

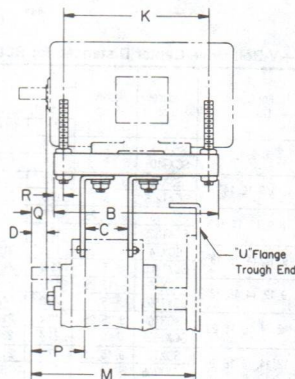
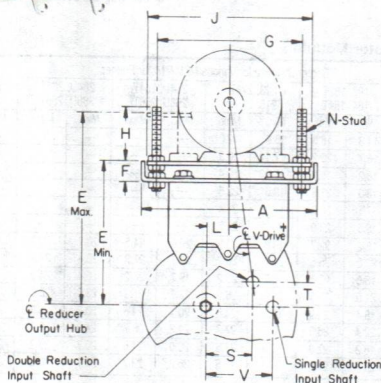
						See Drwg. at Top of Page G6-8 for Locations of:			Basic Drive Nos.		Drive Shaft Diam.	To Fit Screw Diam.	Size	Part No.	Wt.	See Drwg. at Top of Page G6-8 for Locations of:			
Basic Drive Nos.	Drive Shaft Diam.	To Fit Screw Diam.	Size	Part No.	Wt.												C	D	E
						C	D	E											
SCXT105 SCXT109 SCXT115 SCXT125	1 1/2	6	C1Sx1 1/2	351124	6.7	5 1/8	33/64	1 1/4	SCXT405	1 1/2	9	C4Sx1 1/2	354163	18.0	5 1/4	33/64	1 3/8		
	1 1/2	9	C1Sx1 1/2	351124	6.7	5 1/8	23/64	1 1/4	SCXT409	2	9, 12	C4Sx2	354164	20.1	5 1/4	41/64	1 3/8		
	2 1/8	12, 14	C1Sx2	351126	8.3	5 1/8	41/64	1 1/4	SCXT415	3	12, 14	C4Sx2 1/8	354165	22.5	5 1/8	41/64	1 3/8		
	3	12 thru 20	C1Sx3	351127	10.6	5 1/4	41/64	1 1/2	SCXT425	3 1/8	12 thru 24	C4Sx3 1/8	354166	26.3	5 1/8	47/64	1 1/2	17/8	1 1/8
SCXT205 SCXT209 SCXT215 SCXT225	1 1/2	6	C2Sx1 1/2	352124	11.0	5 1/8	33/64	1 1/4	SCXT505	2	9, 12	C5Sx2	355081	28.7	5 1/8	41/64	1 1/2		
	1 1/2	9	C2Sx1 1/2	352124	11.0	5 1/8	33/64	1 1/4	SCXT509	2 1/8	12, 14	C5Sx2 1/8	355082	31.1	5 1/8	41/64	1 1/2		
	2 1/8	12, 14	C2Sx2	352125	13.0	5 1/8	41/64	1 1/4	SCXT515	3	12 thru 20	C5Sx3	355083	35.1	5 1/8	49/64	1 1/2	17/8	1 1/8
	3	12 thru 20	C2Sx3	352126	15.4	5 1/4	41/64	1 1/2	SCXT525	3 1/8	18 thru 24	C5Sx3 1/8	355084	43.8	5 1/8	57/64	1 1/2	1 1/8	1 1/8
SCXT305 SCXT309 SCXT315 SCXT325	1 1/2	9	C3Sx1 1/2	353086	13.1	5 1/8	33/64	1 1/4	SCXT605	2 1/8	12, 14	C6Sx2 1/8	356101	45.9	5 1/8	41/64	1 3/8		
	2 1/8	12, 14	C3Sx2	353087	15.1	5 1/8	41/64	1 1/4	SCXT609	3	12 thru 20	C6Sx3	356102	49.8	5 1/8	49/64	1 3/8	17/8	1 1/8
	3	12 thru 20	C3Sx3	353088	17.6	5 1/4	41/64	1 1/2	SCXT615	3 1/8	18 thru 24	C6Sx3 1/8	356103	58.5	5 1/8	57/64	1 1/2	1 1/8	1 1/8
	3 1/8	12 thru 20	C3Sx3	353089	23.0	5 1/8	49/64	1 1/2	SCXT625	3 1/8	18 thru 24	C6Sx3 1/8	356236	63.2	5 1/8	41/64	1 3/8	17/8	1 1/8
SCXT705 SCXT709 SCXT715	2 1/8	12, 14	C7Sx2 1/8	356235	67.1	5 1/8	49/64	1 1/2	SCXT705	2 1/8	12, 14	C7Sx2 1/8	356235	67.1	5 1/8	49/64	1 1/2		
	3	12 thru 20	C7Sx3	356236	75.8	5 1/8	57/64	1 1/2	SCXT709	3	12 thru 20	C7Sx3	356236	75.8	5 1/8	57/64	1 1/2		
	3 1/8	18 thru 24	C7Sx3 1/8	356237	75.8	5 1/8	57/64	1 1/2	SCXT715	3 1/8	18 thru 24	C7Sx3 1/8	356237	75.8	5 1/8	57/64	1 1/2		





## SCD Motor Mounts M (Long Series)

The SCD Motor Mount is a rugged all-steel unit requiring no drilling or foundation. It bolts directly to the long side of the Dodge screw conveyor drive. The top plate will accommodate a wide range of popular NEMA frame motors. Belt tension is easily maintained by the use of four conveniently placed studs.



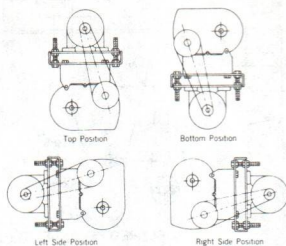
### SCD Motor Mounts

Mtr. Mt. No.	Reducer Size	Nominal Ratio	For Screw Diameter	For NEMA Motor Frames *	Part No.	Wt. (Lbs.)	A	B	C	D	E ♦		F	G	H
											Min.	Max.			
M120L	SCXT1	5, 9, 15, 25	SEE TABLE ON OPPOSITE PAGE	56 thru 215	272625	51	14%	11	3 3/8	1 1/2	17 3/32	20 19/32	1 19/32	12	4 55/64
M220L	SCXT2	5, 9, 15, 25		56 thru 215	272626	51	14%	11	3 3/8	2 7/64	18 19/32	22 3/32	1 19/32	12	4 55/64
M320L	SCXT3	5, 9, 15, 25		56 thru 215	272627	56	14%	11	4 1/4	2 3/32	19 27/32	23 11/32	1 19/32	12	4 55/64
M424L	SCXT4	5, 9, 15, 25		143 thru 286	272628	100	18%	17	4 5/8	3 13/32	21 9/32	25 25/32	1 25/32	15 1/2	5 37/64
M524L	SCXT5	5, 9, 15, 25		143 thru 286	272629	110	18%	17	4 5/8	3 7/8	21 9/32	25 25/32	1 25/32	15 1/2	5 37/64
M624L	SCXT6	5, 9, 15, 25		143 thru 326	272630	122	20 1/2	18 1/2	4 1/2	3 29/64	22 21/32	27 9/32	1 27/32	17 1/2	5 33/64
M724L	SCXT7	5, 9, 15, 25		143 thru 326	272631	130	20 1/2	18 1/2	4 3/4	3 29/64	22 21/32	27 9/32	1 27/32	17 1/2	5 33/64
Mtr. Mt. No.	J	K	L	M	N-Stud		P	Q	R	S	T	V			
					Dia.	Lgth.									
M120L	13 1/2	9 1/4	1 1/2	11 9/32	5/8	7	4 1/32	2 29/64	7/8	3 3/16	1 29/32	3 17/64			
M220L	13 1/2	9 1/4	1 7/32	12 1/32	5/8	7	4 11/32	2 39/64	7/8	3 49/64	2 9/64	3 55/64			
M320L	13 1/2	9 1/4	2 9/16	13 9/16	5/8	7	4 7/16	2 19/32	7/8	4 11/64	2 1/64	4 9/32			
M424L	17 1/2	14 1/4	2 1/2	15 1/16	3/4	8	5 9/16	3 29/32	1	4 25/32	2 3/4	4 7/8			
M524L	17 1/2	14 1/4	3 1/8	16 11/16	3/4	8	6 11/16	4 3/8	1	5 43/64	3 3/64	5 55/64			
M624L	19 1/4	16 1/2	3 23/32	18 1/2	3/4	8	7 9/16	4 61/64	1	6 47/64	4 3/32	6 57/64			
M724L	19 1/4	16 1/2	4 1/16	20 13/32	3/4	8	7 13/16	4 61/64	1	8 19/64	5 7/64	8 9/16			

\* Select motor to suit hp requirements. See V-belt drive center distances in Table 18, page G6-13.

♦ Provides for V-belt adjustment.

Note: Necessary mounting bolts are included.



## SCD Motor Mount (Long Series) Application Guide

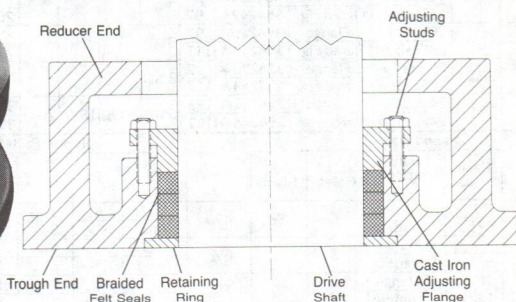
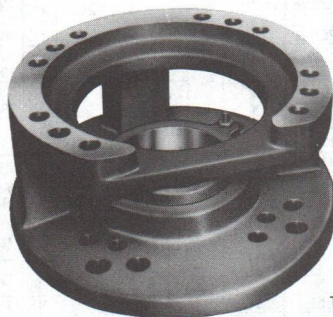
Motor Mount No.	Used on Troughs w/ Screw Diameters:	
	Top, Right and Left Side Positions▲	Bottom Position▲
M120L	20"	20"
M220L	20"	20"
M320L	20"	20"
M420L, M524L	24"	24"
M624L, M724L	24"	24"

**Note**—Mounts to fit troughs w/ screws up thru 24" diameter are available on special order—consult factory.  
▲ See diagram at left.

**Table 18—V-Belt Drive Center Distances for SCD Motor Mounts (Long Series)**

Table 10-1 V-Belt Drive Center Distances for 325 Motor Frames (in.)				Center Distance for Various NEMA Motor Frames															
For Mtr. Mt. No.	For Screw Diameter	Reducer Size	Nominal Ratio	56, 143T, 145T		182, 182T 184, 184T		213, 213T 215, 215T		254U, 254T 256U, 256T		284U, 284T 286U, 286T		324U, 324T 326U, 326T					
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.				
M120L	20"	SCXT1	9, 15, 25	19.8	23.3	20.8	24.3	21.5	25.0	—	—	—	—	—	—				
		SCXT105	5	21.7	25.2	22.7	26.2	23.4	26.9	—	—	—	—	—	—				
M220L	20"	SCXT2	9, 15, 25	21.1	24.6	22.1	25.6	22.9	26.4	—	—	—	—	—	—				
		SCXT205	5	23.3	26.8	24.3	27.8	25.0	28.5	—	—	—	—	—	—				
M320L	20"	SCXT3	9, 15, 25	22.1	25.6	23.1	26.6	23.9	27.4	—	—	—	—	—	—				
		SCXT305	5	24.4	27.9	25.4	28.9	26.2	29.7	—	—	—	—	—	—				
M424L	24"	SCXT4	9, 15, 25	23.2	27.7	24.2	28.7	24.9	29.4	25.9	30.4	26.7	31.2	—	—				
		SCXT405	5	25.9	30.4	26.9	31.4	27.7	32.2	28.7	33.2	29.4	33.9	—	—				
M524L	24"	SCXT5	9, 15, 25	22.9	27.4	23.9	28.4	24.7	29.2	25.7	30.2	26.4	30.9	—	—				
		SCXT505	5	26.0	30.4	27.0	31.5	27.7	32.2	28.7	33.2	29.5	34.0	—	—				
M624L	24"	SCXT6	9, 15, 25	23.3	27.8	24.3	28.8	25.0	29.5	26.0	30.5	26.8	31.3	27.8	32.3				
		SCXT605	5	27.4	31.9	28.4	32.9	29.1	33.6	30.1	34.6	30.9	35.4	31.9	36.4				
M724L	24"	SCXT7	9, 15, 25	23.2	27.7	24.1	28.6	24.9	29.4	25.9	30.4	26.6	31.1	27.6	32.1				
		SCXT705	5	28.2	32.7	29.2	33.7	29.9	34.4	30.9	35.4	31.7	36.2	32.6	37.1				

## Adjustable Packing Gland Adapter



The adjustable packing gland adapter can be repacked without removing the adapter from the trough end. This packing gland adapter is mainly used in applications where there is a very abrasive environment, such as cement dust.

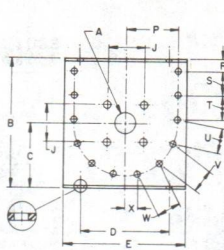
The packing gland allows for easy removal and installation of the braided felt seals. As the seals wear, the adjusting studs can be retightened with an open-ended wrench causing the cast iron adjusting flange to compress the seals tighter around the drive shaft and end plate.

**Note:** Refer to pages G6-8 and G6-9 for part numbers.

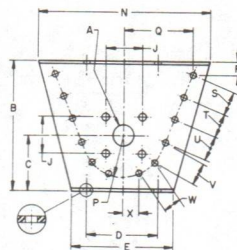


# Screw Conveyor Trough End Plates

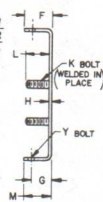
Steel trough end plates with feet are available for use on screw conveyors. They are manufactured to conform to CEMA standard dimensions. Two styles are offered to fit either the "U" or flanged flange hole patterns. Both styles use studs with the 4-bolt CEMA mounting for attaching to standard or Hydroil Screw Conveyor Drives.



U-FLANGE STYLE



FLANGED FLANGE STYLE



## Screw Conveyor Trough End Plates

For Screw Diam.	Shaft Diam.	Trough End Plate		Part No.	Wt.	A	B	C	D *	E	F	G *	H	J	K Diam. Bolt	L	M	N
		No.	Hole Pattern For:															
6	1 1/2	6Ux1 1/2	U-Flange	354218	7	1 5/8	10 1/8	5 5/8	8 1/8	9 3/4	1 3/4	1	3/16	4	1/2	1 17/32	1 3/4	16 5/8
		6FLx1 1/2	Flared Fig.	354232	9	1 5/8	12 5/8	5 5/8	8 1/8	11 5/16	1 3/4	1	3/16	4	1/2	1 17/32	1 3/4	16 5/8
9	1 1/2	9Ux1 1/2	U-Flange	354219	13	1 5/8	14	7 7/8	9 3/8	13 1/2	2 5/8	1 1/2	1/4	4	1/2	1 17/32	2 5/8	21 1/4
		9FLx1 1/2	Flared Fig.	354233	16	1 5/8	16 7/8	7 7/8	9 3/8	14 3/16	2 5/8	1 1/2	1/4	4	1/2	1 17/32	2 5/8	21 1/4
12	2 7/16	12Ux2	U-Flange	354220	17	2 1/8	14	9 3/8	12 1/4	13 1/2	2 5/8	1 1/2	1/4	5 1/8	5/8	1 15/16	2 5/8	21 1/4
		12FLx2	Flared Fig.	354234	21	2 1/8	16 7/8	9 3/8	12 1/4	14 3/16	2 5/8	1 1/2	1/4	5 1/8	5/8	1 15/16	2 5/8	21 1/4
12	2 7/16	12Ux2	U-Flange	354221	27	2 1/8	17 3/8	9 3/8	12 1/4	17 1/4	2 5/8	1 1/2	1/4	5 1/8	5/8	1 15/16	2 5/8	26 3/8
		12FLx2	Flared Fig.	354235	33	2 1/8	19 5/8	9 3/8	12 1/4	18 1/8	2 5/8	1 1/2	1/4	5 1/8	5/8	1 15/16	2 5/8	26 3/8
14	2 7/16	14Ux2 7/16	U-Flange	354222	27	2 1/8	17 3/8	9 3/8	12 1/4	17 1/4	2 5/8	1 1/2	1/4	5 1/8	5/8	1 15/16	2 5/8	26 3/8
		14FLx2 7/16	Flared Fig.	354236	33	2 1/8	19 5/8	9 3/8	12 1/4	18 1/8	2 5/8	1 1/2	1/4	5 1/8	5/8	1 15/16	2 5/8	26 3/8
14	3	14Ux3	U-Flange	354223	34	3 1/8	17 3/8	10 7/8	13 1/2	17 1/4	2 7/8	1 5/8	5/16	6	3/4	2 1/8	3 1/4	28 3/8
		14FLx3	Flared Fig.	354237	40	3 1/8	19 5/8	10 7/8	13 1/2	18 1/8	2 7/8	1 5/8	5/16	6	3/4	2 1/8	3 1/4	28 3/8
16	3	16Ux3	U-Flange	354224	34	3 1/8	20 1/8	10 7/8	13 1/2	20 1/8	2 7/8	1 5/8	5/16	6	3/4	2 1/8	3 1/4	28 3/8
		16FLx3	Flared Fig.	354238	41	3 1/8	21 7/8	10 7/8	13 1/2	21 1/8	2 7/8	1 5/8	5/16	6	3/4	2 1/8	3 1/4	28 3/8
16	3	16Ux3	U-Flange	354225	53	3 1/8	22 5/8	12	14 7/8	21 1/4	3 1/4	2	5/16	6	3/4	2 1/8	3 1/4	32 1/2
		16FLx3	Flared Fig.	354240	65	3 1/8	23 1/2	12	14 7/8	22 5/8	3 1/4	2	5/16	6	3/4	2 1/8	3 1/4	32 1/2
18	3 7/16	18Ux3	U-Flange	354227	81	3 1/8	24 1/4	12	14 7/8	24 1/4	3 1/4	2	3/8	6	3/4	2 1/8	3 1/4	36 1/2
		18FLx3	Flared Fig.	354241	97	3 1/8	25 1/2	12	14 7/8	25 1/2	3 1/4	2	3/8	6	3/4	2 1/8	3 1/4	36 1/2
20	3 7/16	20Ux3	U-Flange	354228	81	3 1/8	24 1/4	12	14 7/8	24 1/4	3 1/4	2	3/8	6	3/4	2 1/8	3 1/4	36 1/2
		20FLx3	Flared Fig.	354242	97	3 1/8	25 1/2	12	14 7/8	25 1/2	3 1/4	2	3/8	6	3/4	2 1/8	3 1/4	36 1/2
20	3 7/16	20Ux3 7/16	U-Flange	354229	97	3 1/8	26 1/4	12	14 7/8	26 1/4	3 1/4	2 1/4	3/8	6	3/4	2 1/8	3 1/4	39 1/2
		20FLx3 7/16	Flared Fig.	354243	117	3 1/8	27 1/2	12	14 7/8	27 1/2	3 1/4	2 1/4	3/8	6	3/4	2 1/8	3 1/4	39 1/2
24	3 7/16	24Ux3 7/16	U-Flange	354230	97	3 1/8	26 1/4	12	14 7/8	26 1/4	3 1/4	2 1/4	3/8	6	3/4	2 1/8	3 1/4	39 1/2
		24FLx3 7/16	Flared Fig.	354244	117	3 1/8	27 1/2	12	14 7/8	27 1/2	3 1/4	2 1/4	3/8	6	3/4	2 1/8	3 1/4	39 1/2
24	3 7/16	24Ux3 7/16	U-Flange	354231	133	3 1/8	30 1/4	12	14 7/8	30 1/4	2 1/2	1	3/8	6 3/4	3/4	2 1/8	4 1/8	45 1/2
		24FLx3 7/16	Flared Fig.	354245	161	3 1/8	31 5/16	12	14 7/8	31 5/16	2 1/2	1	3/8	6 3/4	3/4	2 1/8	4 1/8	45 1/2

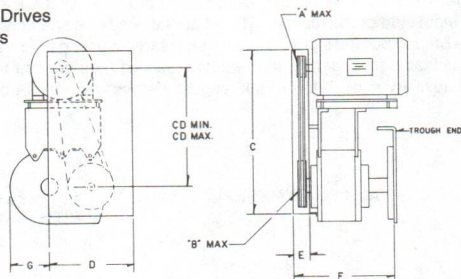
\* Hole spacing in bottom flange also applies to top flange unless otherwise noted.

† G in bottom flange = 2 1/2", in top flange = 1 5/8".

♣ Made-to-order.

# ELT GUARDS TOTALLY ENCLOSED

Guards for Screw Conveyor Drives  
on Standard SCD Motor Mounts



## KT Double Reduction with Belt Guard

Motor Mount Size	Belt Guard Size +	Motor Frame	CD	CD	Max. A	Max. B	C	D	E	F	G	Part Number
			Min.	Max.								
M112	SCXT1-D	143/184	12.8	18.0	5	12	27	13	3 1/2	14 25/32	1	241485
M214	SCXT2-D	143/184	14.5	19.6	5	12	30	14	4	15 25/32	7/8	242485
M316	SCXT3-D	143/215	15.5	20.7	6	14	32	16	4	17 3/16	1 1/16	243485
M418	SCXT4-D	143/286	16.7	24.5	7	15	36	17	5	20 3/16	1 25/32	244485
M518	SCXT5-D	143/286	16.7	24.4	7	15	37	18	5 1/2	22 3/16	3/4	245487
M620	SCXT6-D	143/326	17.4	26.0	8	18	41	20	5	23 1/2	4 3/8	246485
M720	SCXT7-D	143/326	17.2	25.4	10	20	42	23	5	25 3/8	6 1/4	247485

15 7 25:1 Ratio

## KT Single Reduction with Belt Guard

Motor Mount Size	Belt Guard Size ■	Motor Frame	CD	CD	Max. A	Max. B	C	D	E	F	G	Part Number
			Min.	Max.								
M112	SCXT1-S	143T/184T	14.9	20.1	5 ■	12	31	13 1/2	3 1/2	14 25/32	3/8	241486
M214	SCXT2-S	143T/184T	16.6	21.7	6 ■	12	33	13 1/2	4	15 25/32	1 1/4	242486
M316	SCXT3-S	143T/215T	17.8	23.0	7	12	35	13 1/2	4	17 3/16	2 3/8	243484
M418	SCXT4-S	143T/286T	19.4	27.2	8	12	40	13 1/2	4 1/2	20 3/16	3 3/8	244486
M518	SCXT5-S	143T/286T	19.7	27.4	8	12	40	13 1/2	5 1/4	22 3/16	5 1/16	245488
M620	SCXT6-S	143T/326T	21.3	30.0	10	16	45	17	6	23 1/2	5 3/16	246486
M720	SCXT7-S	143T/326T	21.8	30.3	10	16	45	17	6	25 3/8	9 1/4	247486

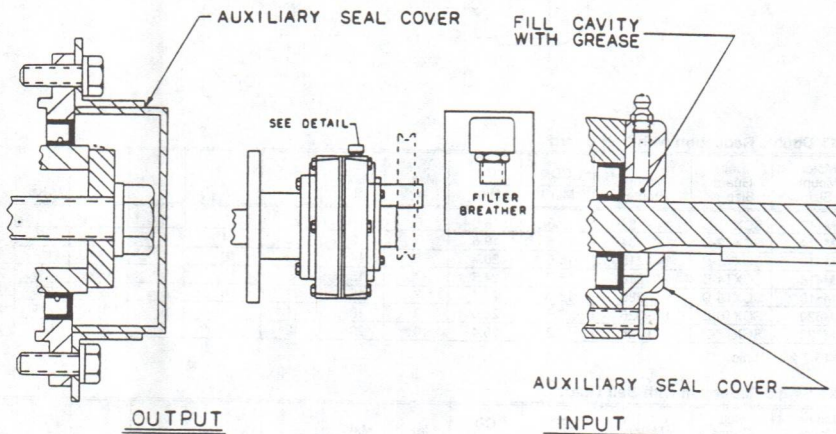
Guard will interfere with floor when used with 6" screw unless trough is raised above floor.

5:1 Ratio



# SCD Auxiliary Seal Kit

Screw conveyor drives often operate in harsh environments in which the input shaft side of the reducer ends up turning in such materials as sand, cement, saw dust and grain. These materials are very abrasive and often damage seals, bearings and gears. These damages can lead to costly repair bills and downtime. To help prevent these maintenance problems DODGE offers an Auxiliary Seal Kit to protect the input side of the reducer. The kit contains a drive shaft end cover, special filtered air breather and a grease purged input seal with necessary mounting hardware. The auxiliary seals will prevent contaminants from getting to the seal area and thus prevent them from entering the reducer. Use the auxiliary seal kit to get the longest life possible life out of your DODGE Screw Conveyor Drive.



**Auxiliary Seal Kit**

Reducer Size	Nominal Ratio	Part Number*
SCXT1	5, 9, 15, 25	272721
SCXT2	5, 9, 15, 25	272722
SCXT3	5, 9, 15, 25	272723
SCXT4	5, 9, 15, 25	272724
SCXT5	5, 9, 15, 25	272725
SCXT6	5, 9, 15, 25	272726
SCXT7	5, 9, 15, 25	272727

\* RLK Warehouse Stock

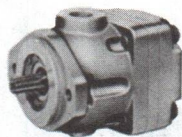
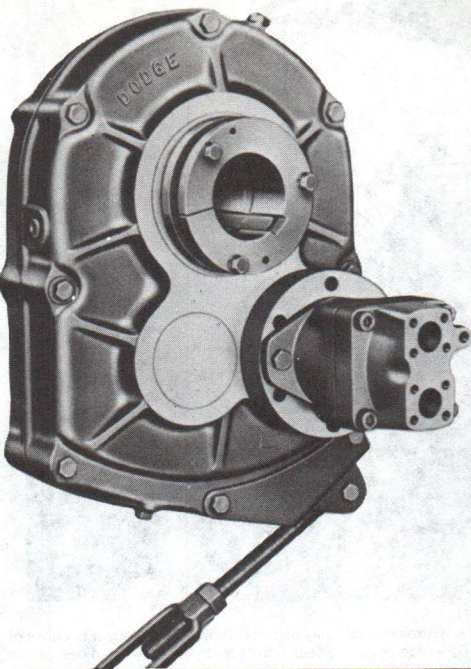
# DODGE HYDROIL DRIVES

## Hydraulically Powered Torque-Arm Speed Reducers with Infinitely Adjustable Speed and Torque

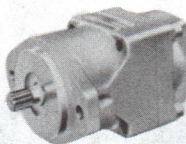
This is a modified version of the famous Torque-Arm speed reducer with the same quality features and ease of installation as described on pages G5-3 and G5-7.

A hydraulic motor powers the Hydroil reducer, greatly expanding its scope of application and versatility. It has proven to be popular for locations remote from the prime mover where shafts or belt and chain drives are impractical or where electric motors are not available. Exceptional flexibility is provided in the control of the driven machine by simply regulating the pressure and volume of fluid fed to the Hydroil motor.

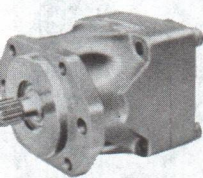
Users can provide flexible control of the Hydroil drive by selecting proper auxiliary equipment. Output speeds of the reducer are infinitely adjustable through the use of regulating valves in the hydraulic circuit. Both speed and torque can be adjusted to meet the requirements of the driven machine which can be inched or jogged. The direction of rotation is reversible. Overload protection may be provided.



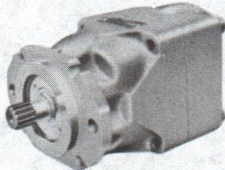
Hydroil Vane Motors A10 and A20



Hydroil Vane Motor B30



Hydroil Vane Motor B40



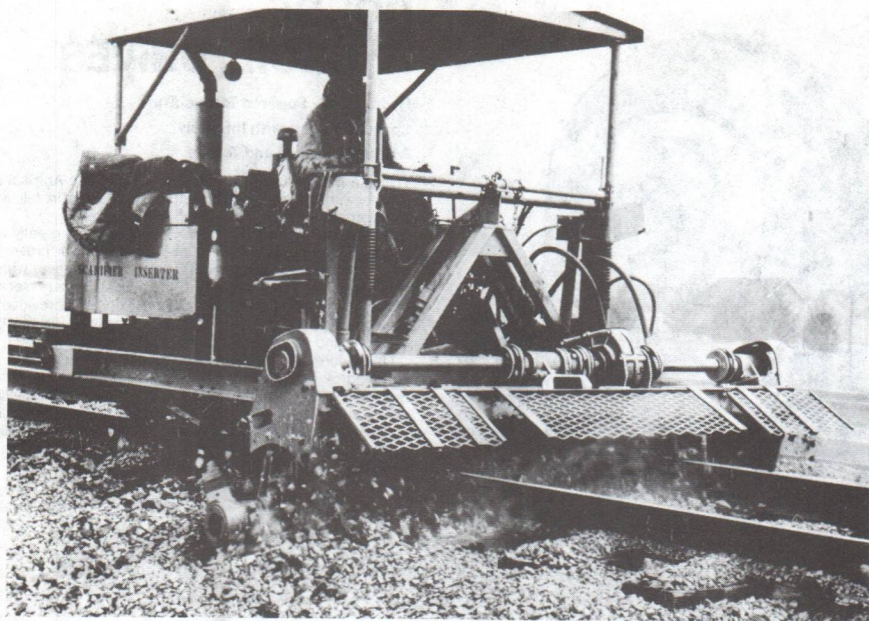
Hydroil Vane Motor B50

**Hydroil Vane Motors**—are a superior single stage vane type fluid motor. A series of internal ports admit oil to and carry it from the power element. Complete hydraulic balance of the assembly contributes to the mechanical efficiency and long life of these motors as well as to their unusually quiet operation. Other exclusive features assure a minimum of friction and efficient valving action regardless of operating speeds. Details of Hydroil Vane Motors may be found on page G7-13.

## CONTENTS

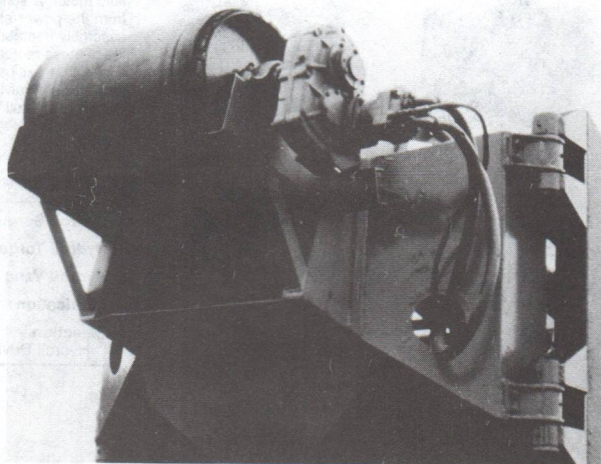
Hydroil Screw Conveyors Drives . . .	G7-18, G7-19
Hydroil Torque-Arm Reducers . . .	G7-14 thru G7-17
Hydroil Vane Motors . . . . .	G7-13
Lubrication . . . . .	G5-44 and G5-45
Selection	
Hydroil Drives . . . . .	G7-3 thru G7-12





A manufacturer of a mobile railroad trackbed scarifier uses the Hydroil hydraulically powered Torque-Arm reducer because of its efficient operation remote from an electric power source. Other factors in the selection of Hydroil were rugged design and adaptability.

**Note:** Guards have been removed for photographic purposes.



Head pulley of the conveyor system on a portable trenching machine is powered through a Hydroil HT725 Torque-Arm Speed Reducer.

**Note:** Guards have been removed for photographic purposes.

## Selection of Hydrol Speed Reducer Size

and the required double reduction reducer from one of the pages that follow or single reduction reducer from page 10 thru G7-12. For extreme repetitive shock, consult Alliance.

**Class I**—Steady load not exceeding reducer hp and light shock loads in a 10-hour period. Moderate shock loads allowable if operation is intermittent.

**Class II**—Steady load not exceeding reducer hp in a 24-hour period. Moderate shock loads allowable in a 10-hour period.

**Class III**—Moderate shock load in a 10-hour period. Heavy shock loads allowable in a 10-hour period.

The maximum value of momentary peak loads should not exceed 2X output hp for Class I applications, 2.8X for Class II and 4X for Class III applications. If it exceeds these amounts, divide by 2 for Class I applications, 2.8 for Class II applica-

tions, 4 for Class III applications and select a reducer from tables with a rating of not less than the result obtained.

**Example**—A 30 rpm head shaft on a bucket elevator, not uniformly fed, requires 3 hp and runs 16 hours a day. The table below indicates this is a Class III application. Find 30 Output RPM at top of table on page G7-8. Read down to 3.4 Output HP which is the first figure greater than the 3 hp required. From the 3.4 figure, trace to the extreme left hand column and note a basic size 4 reducer is indicated. Either the 415 or 425 size may be used depending on Starting torque requirements shown in the table. (Sizes are positioned to show progressive Starting torque and to offer the most economical drive.) Also note that Motor Pressures and Flow Rates are shown for each reducer.

**Important**—When ordering be sure to specify prefix HXT with reducer size when ordering Torque-Arm Hydrol Reducers. For other ordering instructions see page G5-8.

Table 19—Class Number of Application

Application	★ Type of Load	Class No.		Application	★ Type of Load	Class No.		Application	★ Type of Load	Class No.	
		10 Hour Day	24 Hour Day			10 Hour Day	24 Hour Day			10 Hour Day	24 Hour Day
AGITATORS Pure Liquids Semi-Liquids, Variable Density	MS	II	II	CRANES & HOISTS Bridge Drive Trolley Drive	MS	II	II	PAPER MILLS Agitators (Mixers) Bleacher	MS	II	II
REWINDING & DIS- TILLING Bottling Machinery Brew Kettles, Con- tinuous Duty	MS	II	II	CUTTER HEAD DRIVES DRYERS & COOLERS, ROTARY ELEVATORS	MS	II	III	Calenders Cylinders Felt Stretcher Winders	MS	II	II
Cookers, Continuous Duty	MS	II	II	Bucket, Uniform Load Bucket, Heavy Load Freight	MS	II	III	PEBBLE MILLS PUMPS Proportioning Reciprocating	MS	II	III
Mash Tubs, Con- tinuous Duty Scale Hopper, Fre- quent Starts	MS	II	II	FOOD INDUSTRY Beet Slicer Cereal Cooker Dough Mixer Meat Grinders	MS	II	II	Open Discharge Double Acting Multi-Cylinder Single Cylinder Rotary, Gear Type Constant Density Variable Density	MS	II	III
AN FILLING MACHINES AR DUMPERS AR PULLERS	MS	II	II	LAUNDRY WASHERS Reversing LAUNDRY TUMBLERS LINE SHAFTS	MS	II	III	RUBBER INDUSTRY Tire Building Machines Tire & Tube Press Openers	MS	II	II
CLASSIFIERS LAY WORKING MACHINERY Brick Press Briquette Machine Extruders & Mixers	MS	II	II	Uniform Load Heavy Load Main Drive, Uniform Load Main Drive, Heavy Load	MS	II	II	SCREENS Air Washing Rotary, Stone or Gravel Traveling Water Intake Shaker	MS	II	II
ONVEYORS, UN- FORMLY LOADED OR FED Apron Assembly	MS	II	II	METAL MILLS Table Conveyors Non-Reversing Reversing	MS	II	III	SKIP HOISTS STOKERS TEXTILE INDUSTRY Batchers Calenders Card Machines Dry Cans Dyeing Machinery Looms	MS	II	II
ONVEYORS, HEAVY DUTY NOT UN- FORMLY FED Apron Assembly	MS	II	II	Wire Drawing & Flat- tening Machine MIXERS Concrete Mixers, Continuous Concrete Mixers, Intermittent Constant Density Variable Density Liquid Semi-Liquid	MS	II	III	Mangles Nappers Soapers Spinners Tenter Frames	MS	II	II
Belt Bucket or Pan Flight Live Roll Oven Reciprocating Screw	MS	II	II	TUMBLING BARRELS WINDLASS	MS	II	II	MS	II	II	II

★ Uni.—Uniform; MS—Moderate Shock; HS—Heavy Shock  
Note: It is recommended that class numbers for special applica-  
tions be agreed upon by user and factory when variations of the  
table may be required. Special conditions can be any special type

of prime mover, starting or stopping conditions, system condi-  
tions, ambient conditions, lubrication, overloads, overspeeds,  
brake equipped applications, high inertia and reversing loads.  
\* Consult factory.



# Class I Applications—Selection of Double Reduction Reducers

Table 18—Class I Applications (Use for applications listed as Class I on G7-3.)

Reducer Size	Requirements (Read Across)	Output RPM (Consult factory for Speeds below 10)															
		10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
HXT-115	OUTPUT HP(RUN)	0.6	0.9	1.2	1.4	1.7	2.0	2.2	2.4	2.7	2.9	3.1	3.4	3.7	4.0	4.3	4.6
	Running Torque	4053	3806	3683	3609	3560	3524	3498	3429	3373	3328	3290	3258	3226	3194	3162	3130
	Starting Torque	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996
	Running Pressure Flow Rate, GPM	1.70	1.65	1.53	1.52	1.50	1.48	1.47	1.44	1.42	1.40	1.38	1.36	1.34	1.32	1.30	1.28
HXT-125	OUTPUT HP(RUN)	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.1	3.4	3.7	4.0	4.3	4.6
	Running Torque	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384	3384
	Starting Torque	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852
	Running Pressure Flow Rate, GPM	1.7	2.0	2.3	2.6	2.8	3.1	3.4	3.6	3.9	4.2	4.4	4.7	5.0	5.3	5.6	5.9
HXT-215	OUTPUT HP(RUN)	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	3.5	3.9	4.1	4.5	4.9	5.3	5.7	6.1
	Running Torque	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354
	Starting Torque	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669
	Running Pressure Flow Rate, GPM	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
HXT-225	OUTPUT HP(RUN)	1.1	1.6	2.1	2.6	3.1	3.6	4.0	4.4	4.9	5.3	5.7	6.1	6.6	7.0	7.4	7.8
	Running Torque	7245	6884	6670	6542	6457	6396	6350	6223	6121	6038	5968	5910	5858	5806	5754	5702
	Starting Torque	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105
	Running Pressure Flow Rate, GPM	2.000	1.900	1.841	1.806	1.782	1.766	1.753	1.718	1.690	1.667	1.648	1.632	1.615	1.598	1.581	1.564
HXT-315	OUTPUT HP(RUN)	1.7	2.3	3.0	3.7	4.3	5.0	5.6	6.2	6.8	7.3	7.9	8.4	8.9	9.4	9.9	10.4
	Running Torque	10462	9762	9412	9202	9062	8962	8887	8678	8511	8374	8260	8164	8074	7984	7894	7804
	Starting Torque	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218
	Running Pressure Flow Rate, GPM	1.451	1.354	1.305	1.276	1.257	1.243	1.232	1.203	1.180	1.161	1.146	1.132	1.117	1.102	1.087	1.072
HXT-325	OUTPUT HP(RUN)	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4	6.1	6.7	7.3	7.9	8.5	9.1	9.7	10.3
	Running Torque	7631	7631	7631	7631	7631	7631	7631	7631	7631	7631	7631	7631	7631	7631	7631	7631
	Starting Torque	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430
	Running Pressure Flow Rate, GPM	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
HXT-415	OUTPUT HP(RUN)	2.5	3.6	4.7	5.8	6.9	8.0	9.1	9.9	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1
	Running Torque	16008	15231	14842	14609	14454	14343	14259	13929	13664	13447	13267	13114	12974	12834	12694	12554
	Starting Torque	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508
	Running Pressure Flow Rate, GPM	2.183	2.077	2.024	1.992	1.971	1.956	1.945	1.900	1.863	1.834	1.809	1.788	1.768	1.748	1.728	1.708
HXT-425	OUTPUT HP(RUN)	2.5	3.6	4.7	5.8	6.9	8.0	9.1	9.9	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1
	Running Torque	16008	15231	14842	14609	14454	14343	14259	13929	13664	13447	13267	13114	12974	12834	12694	12554
	Starting Torque	28205	28205	28205	28205	28205	28205	28205	28205	28205	28205	28205	28205	28205	28205	28205	28205
	Running Pressure Flow Rate, GPM	1.355	1.289	1.256	1.237	1.224	1.214	1.207	1.179	1.157	1.138	1.123	1.110	1.097	1.084	1.071	1.058
HXT-515	OUTPUT HP(RUN)	4.1	5.6	7.2	8.7	10.3	11.8	13.4	14.7	16.1	17.4	18.7	20.1	21.4	22.7	24.0	25.3
	Running Torque	25588	23599	22605	22008	21611	21326	21113	20630	20244	19927	19664	19441	19218	18995	18772	18549
	Starting Torque	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758
	Running Pressure Flow Rate, GPM	1.924	1.774	1.700	1.655	1.625	1.603	1.587	1.551	1.522	1.498	1.478	1.462	1.446	1.430	1.414	1.398
HXT-525	OUTPUT HP(RUN)	4.1	5.6	7.2	8.7	10.3	11.8	13.4	14.7	16.1	17.4	18.7	20.1	21.4	22.7	24.0	25.3
	Running Torque	25588	23599	22605	22008	21611	21326	21113	20630	20244	19927	19664	19441	19218	18995	18772	18549
	Starting Torque	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580
	Running Pressure Flow Rate, GPM	2.065	1.905	1.825	1.776	1.744	1.721	1.704	1.665	1.634	1.606	1.587	1.569	1.551	1.533	1.515	1.497
HXT-615	OUTPUT HP(RUN)	5.3	7.9	10.5	13.1	15.8	18.2	20.6	22.6	24.6	26.7	28.7	30.7	32.7	34.7	36.7	38.7
	Running Torque	33118	33118	33118	33118	33118	33118	33118	33118	33118	33118	33118	33118	33118	33118	33118	33118
	Starting Torque	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630
	Running Pressure Flow Rate, GPM	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
HXT-625	OUTPUT HP(RUN)	6.2	8.6	11.0	13.4	15.8	18.2	20.6	22.6	24.6	26.7	28.7	30.7	32.7	34.7	36.7	38.7
	Running Torque	39265	36239	34727	33819	33214	32782	32458	31681	31059	30550	30126	29761	29447	29133	28819	28505
	Starting Torque	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839
	Running Pressure Flow Rate, GPM	1.908	1.869	1.825	1.776	1.744	1.721	1.704	1.665	1.634	1.606	1.587	1.569	1.551	1.533	1.515	1.497
HXT-715	OUTPUT HP(RUN)	9.1	12.7	16.3	19.9	23.6	27.2	30.8	33.9	36.9	39.7	42.5	45.3	48.1	50.9	53.7	56.5
	Running Torque	57038	53556	51365	50231	49475	48934	48529	47423	46538	45653	44768	43883	42998	42113	41228	40343
	Starting Torque	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407
	Running Pressure Flow Rate, GPM	2.372	2.215	2.136	2.089	2.058	2.035	2.018	1.972	1.936	1.894	1.858	1.822	1.786	1.750	1.714	1.678
HXT-725	OUTPUT HP(RUN)	8.4	12.6	16.3	19.9	23.6	27.2	30.8	33.9	36.9	39.7	42.5	45.3	48.1	50.9	53.7	56.5
	Running Torque	53121	53121	53121	53121	53121	53121	53121	53121	53121	53121	53121	53121	53121	53121	53121	53121
	Starting Torque	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733
	Running Pressure Flow Rate, GPM	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500

Output HP—Horsepower rating of the reducer/motor under continuous operation after load has been started.

Running Torque—Continuous output torque rating of reducer/motor (in.-lbs.)

Starting Torque—Momentary output torque available for starting (in.-lbs.)

Running Pressure—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24. (P.S.I.)

Flow Rate—Flow required for given output RPM. With oil viscosity of 300SUS @ 100°F. for A10, A2000 and 200SUS @ 100°F. for B30, B40, B50 motors.

# Class I Applications—Selection of Double Reduction Reducers

Table 18—Class I Applications (Use for applications listed as Class I on G7-3.)

Reducer Size	Requirements (Read Across)	Output RPM (Consult factory for Speeds below 10)															
		70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
HXT-115	OUTPUT HP(RUN)	3.6	3.8	4.0	4.3	4.5	4.7	4.9	5.1	5.3	5.6	5.8	6.0	6.2	6.4		
	Running Torque	3230	3207	3186	3168	3151	3126	3103	3082	3063	3046	3030	3009	2989	2970		
	Starting Torque	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996		
	Running Pressure Flow Rate, GPM	1362 6.1	1352 6.5	1344 6.9	1336 7.3	1329 7.6	1318 8.0	1309 8.4	1300 8.8	1292 9.1	1285 9.5	1278 9.9	1269 10.3	1261 10.6	1253 11.0		
HXT-125	OUTPUT HP(RUN)	3.6	3.8	4.0	4.3												
	Running Torque	3230	3207	3186	3168												
	Starting Torque	2852	2852	2852	2852												
	Running Pressure Flow Rate, GPM	1909 4.9	1895 5.2	1883 5.5	1872 5.7												
HXT-215	OUTPUT HP(RUN)	4.8	5.2	5.5	5.9	6.2	6.6	6.9	7.3	7.6	7.9	8.3	8.6	9.0	9.3	9.7	
	Running Torque	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	
	Starting Torque	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	
	Running Pressure Flow Rate, GPM	2000 6.1	2000 6.4	2000 6.8	2000 7.1	2000 7.5	2000 7.8	2000 8.2	2000 8.5	2000 8.9	2000 9.2	2000 9.6	2000 9.9	2000 10.3	2000 10.6	2000 11.0	
HXT-225	OUTPUT HP(RUN)	6.5	6.9	7.3	7.7												
	Running Torque	5860	5816	5778	5744												
	Starting Torque	6105	6105	6105	6105												
	Running Pressure Flow Rate, GPM	1618 9.1	1606 9.7	1595 10.3	1586 10.8												
HXT-315	OUTPUT HP(RUN)	9.0	9.5	10.1	10.6	11.2	11.7	12.2	12.7	13.2	13.7	14.2	14.7	15.2	15.7	16.2	
	Running Torque	8082	8010	7947	7892	7843	7762	7689	7623	7565	7506	7446	7386	7326	7266	7206	
	Starting Torque	16163	16020	15895	15784	15686	15524	15378	15246	15126	15016	14916	14798	14690	14589	14496	
	Running Pressure Flow Rate, GPM	1121 17.9	1110 19.0	1100 20.2	1090 21.3	1080 22.4	1070 23.6	1060 24.7	1050 25.9	1040 26.9	1030 27.9	1020 29.0	1010 30.0	1000 31.1	990 32.2	980 33.3	
HXT-325	OUTPUT HP(RUN)	8.5	9.1	9.7	10.3												
	Running Torque	7631	7631	7631	7631												
	Starting Torque	6430	6430	6430	6430												
	Running Pressure Flow Rate, GPM	2000 9.8	2000 10.4	2000 11.0	2000 11.6												
HXT-415	OUTPUT HP(RUN)	14.4	15.0	15.6	16.2	16.8	17.4	18.0	18.6	19.2	19.8	20.4	21.0	21.6	22.2	22.8	
	Running Torque	12983	12605	11817	11122	10504	9951	9454	9004	8594	8221	7878	7563	7272	7003	6753	
	Starting Torque	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	
	Running Pressure Flow Rate, GPM	1771 19.1	1719 20.2	1612 21.2	1517 22.3	1433 23.3	1357 24.4	1289 25.5	1228 26.6	1172 27.7	1121 28.7	1074 29.8	1031 30.9	992 32.0	955 33.1	921 34.2	
HXT-425	OUTPUT HP(RUN)	14.4	15.0	15.6	16.2	16.8	17.4	18.0	18.6	19.2	19.8	20.4	21.0	21.6	22.2	22.8	
	Running Torque	12983	12605	11817	11122	10504	9951	9454	9004	8594	8221	7878	7563	7272	7003	6753	
	Starting Torque	25966	25739	25541	25366	25206	25054	24910	24772	24640	24512	24388	24268	24152	24040	23932	
	Running Pressure Flow Rate, GPM	1099 28.2	1067 30.0	1030 31.8	1000 33.6												
HXT-515	OUTPUT HP(RUN)	21.4	22.7	24.0	25.0	25.0	24.3	22.8	22.5	21.8	21.3	20.8	20.0				
	Running Torque	19250	19084	18939	18537	17507	16121	14370	13505	12490	11673	10924	10084				
	Starting Torque	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	24958			
	Running Pressure Flow Rate, GPM	1447 33.5	1447 35.6	1447 37.7	1447 39.7	1447 41.7	1447 43.6	1447 45.4	1447 47.3	1447 49.3	1447 51.3	1447 53.2	1447 55.2				
HXT-525	OUTPUT HP(RUN)	21.4	22.7	24.0													
	Running Torque	19250	19084	18939													
	Starting Torque	29580	29580	29580													
	Running Pressure Flow Rate, GPM	1554 30.1	1540 32.1	1529 34.1													
HXT-615	OUTPUT HP(RUN)	26.1	24.9	24.1	23.5	22.8	22.2	21.4	20.8	20.1	18.6	16.7	15.0				
	Running Torque	23499	20924	18986	17425	15966	14728	13487	12485	11516	10194	8771	7563				
	Starting Torque	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630			
	Running Pressure Flow Rate, GPM	1774 34.2	1580 35.8	1433 37.6	1315 39.4	1205 41.3	1112 43.1	1018 45.0	942 47.0	869 48.9	789 50.8	709 52.6	622 54.5				
HXT-625	OUTPUT HP(RUN)	26.1	24.9	24.1													
	Running Torque	23499	20924	18986													
	Starting Torque	51839	51839	51839													
	Running Pressure Flow Rate, GPM	1082 51.4	964 54.6	874 57.9													
HXT-715	OUTPUT HP(RUN)	35.0	33.8	32.5	31.3	30.0	28.7	27.5	26.3	25.0	23.7	22.3					
	Running Torque	31513	28403	25604	23208	21008	19040	17332	15788	14324	12989	11712					
	Starting Torque	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407			
	Running Pressure Flow Rate, GPM	1311 57.9	1181 61.4	1065 64.9	965 68.4	874 72.0	792 75.6	721 79.3	657 82.9	596 86.6	540 89.4	487 93.0					
HXT-725	OUTPUT HP(RUN)	35.0	33.8														
	Running Torque	31513	28403														
	Starting Torque	50733	50733														
	Running Pressure Flow Rate, GPM	1483 51.4	1337 54.5														

Output HP—Horsepower rating of the reducer/motor under continuous operation after load has been started.

Running Torque—Continuous output torque rating of reducer/motor (in. lbs.)

Starting Torque—Momentary output torque available for starting (in. lbs.)

Running Pressure—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24. (P.S.I.)

Flow Rate—Flow required for given output RPM. With oil viscosity of 300 SUS @ 100°F. for A10, A20 motor and 200 SUS @ 100°F. for B30, B40, B50 motors.



# Class II Applications—Selection of Hydrol Double Reduction Reducers

Table 19—Class II Applications (Use for applications listed as Class II on G7-3.)

Reducer Size	Requirements (Read Across)	Output RPM (Consult factory for Speeds below 10)											
		10	15	20	25	30	35	40	45	50	55	60	65
HXT-115	OUTPUT HP(RUN)	0.5	0.6	0.8	1.0	1.2	1.4	1.6	1.7	1.9	2.1	2.2	2.4
	Running Torque	2895	2719	2631	2578	2543	2517	2498	2449	2409	2377	2350	2327
	Starting Torque	3296	3096	2996	2936	2896	2862	2836	2786	2746	2714	2686	2662
	Running Pressure	1221	1147	1109	1087	1072	1062	1054	1033	1016	1003	991	981
	Flow Rate, GPM	1.5	1.8	2.2	2.6	2.9	3.3	3.7	4.0	4.4	4.8	5.2	5.5
HXT-125	OUTPUT HP(RUN)	0.5	0.6	0.8	1.0	1.2	1.4	1.6	1.7	1.9	2.1	2.2	2.4
	Running Torque	2895	2719	2631	2578	2543	2517	2498	2449	2409	2377	2350	2327
	Starting Torque	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852
	Running Pressure	1711	1607	1555	1523	1503	1488	1477	1447	1424	1405	1389	1371
	Flow Rate, GPM	1.6	1.8	2.0	2.3	2.5	2.8	3.1	3.3	3.6	3.8	4.1	4.4
HXT-215	OUTPUT HP(RUN)	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	3.5	3.8	4.1	4.4
	Running Torque	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354	4354
	Starting Torque	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669
	Running Pressure	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	1981	1959
	Flow Rate, GPM	1.9	2.3	2.6	3.0	3.3	3.6	4.0	4.3	4.7	5.0	5.4	5.7
HXT-225	OUTPUT HP(RUN)	0.8	1.2	1.5	1.9	2.2	2.5	2.9	3.2	3.5	3.8	4.1	4.4
	Running Torque	5222	4917	4764	4673	4612	4568	4536	4445	4372	4313	4263	4221
	Starting Torque	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105
	Running Pressure	1442	1357	1315	1290	1273	1261	1252	1227	1207	1191	1177	1165
	Flow Rate, GPM	2.0	2.6	3.1	3.7	4.3	4.8	5.4	6.0	6.5	7.1	7.7	8.3
HXT-315	OUTPUT HP(RUN)	1.2	1.7	2.1	2.6	3.1	3.6	4.0	4.4	4.8	5.2	5.6	6.0
	Running Torque	7473	6973	6723	6573	6473	6401	6348	6198	6079	5982	5900	5832
	Starting Torque	12718	12718	12718	12718	12718	12718	12718	12718	12718	12718	12718	12718
	Running Pressure	1036	967	932	911	898	888	880	860	843	829	818	809
	Flow Rate, GPM	3.9	4.9	6.0	7.2	8.3	9.4	10.6	11.7	12.8	14.0	15.1	16.2
HXT-325	OUTPUT HP(RUN)	1.2	1.7	2.1	2.6	3.1	3.6	4.0	4.4	4.8	5.2	5.6	6.0
	Running Torque	7473	6973	6723	6573	6473	6401	6348	6198	6079	5982	5900	5832
	Starting Torque	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430
	Running Pressure	1959	1828	1782	1732	1696	1678	1664	1625	1593	1568	1546	1528
	Flow Rate, GPM	2.4	2.9	3.5	4.1	4.7	5.3	5.9	6.5	7.1	7.7	8.3	8.9
HXT-415	OUTPUT HP(RUN)	1.8	2.6	3.4	4.1	4.9	5.7	6.5	7.1	7.7	8.4	9.0	9.7
	Running Torque	11435	10879	10602	10435	10324	10245	10185	9949	9760	9605	9476	9367
	Starting Torque	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508
	Running Pressure	1559	1484	1446	1423	1408	1397	1389	1357	1331	1310	1292	1277
	Flow Rate, GPM	4.7	5.8	6.9	8.0	9.2	10.3	11.5	12.6	13.8	14.9	16.1	17.2
HXT-425	OUTPUT HP(RUN)	1.8	2.6	3.4	4.1	4.9	5.7	6.5	7.1	7.7	8.4	9.0	9.7
	Running Torque	11435	10879	10602	10435	10324	10245	10185	9949	9760	9605	9476	9367
	Starting Torque	28205	28205	28205	28205	28205	28205	28205	27857	27328	26894	26534	26228
	Running Pressure	968	921	897	883	874	867	862	842	826	811	802	793
	Flow Rate, GPM	5.2	7.1	8.9	10.8	12.7	14.6	16.5	18.3	20.2	22.1	23.9	25.8
HXT-515	OUTPUT HP(RUN)	2.9	4.0	5.1	6.2	7.3	8.5	9.6	10.5	11.5	12.4	13.4	14.3
	Running Torque	18277	16857	16146	15720	15438	15233	15081	14736	14460	14234	14046	13886
	Starting Torque	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758
	Running Pressure	1374	1267	1214	1182	1161	1145	1134	1108	1087	1070	1056	1044
	Flow Rate, GPM	7.7	9.6	11.6	13.6	15.7	17.8	19.9	22.0	24.0	26.1	28.2	30.3
HXT-525	OUTPUT HP(RUN)	2.9	4.0	5.1	6.2	7.3	8.5	9.6	10.5	11.5	12.4	13.4	14.3
	Running Torque	18277	16857	16146	15720	15438	15233	15081	14736	14460	14234	14046	13886
	Starting Torque	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580
	Running Pressure	1475	1361	1303	1269	1246	1230	1217	1189	1167	1149	1134	1121
	Flow Rate, GPM	6.2	8.0	9.9	11.8	13.8	15.8	17.7	19.7	21.6	23.6	25.5	27.5
HXT-615	OUTPUT HP(RUN)	4.5	6.2	7.9	9.6	11.3	13.0	14.7	16.2	17.6	19.0	20.5	21.9
	Running Torque	28046	25885	24805	24157	23724	23416	23184	22629	22185	21821	21519	21262
	Starting Torque	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630
	Running Pressure	2117	1954	1872	1824	1791	1768	1750	1708	1675	1647	1624	1605
	Flow Rate, GPM	9.5	11.3	13.2	15.2	17.2	19.3	21.4	23.4	25.4	27.5	29.6	31.6
HXT-625	OUTPUT HP(RUN)	4.5	6.2	7.9	9.6	11.3	13.0	14.7	16.2	17.6	19.0	20.5	21.9
	Running Torque	28046	25885	24805	24157	23724	23416	23184	22629	22185	21821	21519	21262
	Starting Torque	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839
	Running Pressure	1292	1192	1142	1113	1093	1078	1068	1042	1022	1002	981	961
	Flow Rate, GPM	10.2	13.4	16.8	20.2	23.6	27.1	30.5	33.9	37.4	40.8	44.3	47.7
HXT-715	OUTPUT HP(RUN)	6.5	9.1	11.6	14.2	16.8	19.4	22.0	24.2	26.4	28.6	30.7	32.9
	Running Torque	40741	38040	36690	35879	35339	34953	34664	33873	33241	32724	32293	31928
	Starting Torque	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407
	Running Pressure	1694	1582	1526	1492	1470	1454	1442	1409	1383	1361	1343	1328
	Flow Rate, GPM	12.8	16.3	20.0	23.8	27.5	31.4	35.2	38.9	42.7	46.5	50.3	54.1
HXT-725	OUTPUT HP(RUN)	6.5	9.1	11.6	14.2	16.8	19.4	22.0	24.2	26.4	28.6	30.7	32.9
	Running Torque	40741	38040	36690	35879	35339	34953	34664	33873	33241	32724	32293	31928
	Starting Torque	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733
	Running Pressure	1917	1790	1727	1689	1663	1645	1631	1594	1564	1540	1520	1503
	Flow Rate, GPM	11.6	14.7	18.0	21.3	24.6	28.0	31.3	34.7	38.0	41.3	44.7	48.1

# Class II Applications—Selection of Hydrol Double Reduction Reducers

Table 19—Class II Applications (Use for applications listed as Class II on G7-3.)

Reducer Size	Requirements (Read Across)	Output RPM (Consult factory for Speeds below 10)															
		70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
HXT-115	OUTPUT HP(RUN)	2.6	2.7	2.9	3.1	3.2	3.4	3.5	3.7	3.8	4.0	4.1	4.3	4.4	4.5		
	Running Torque	2307	2291	2276	2263	2251	2233	2216	2202	2188	2176	2165	2149	2135	2122		
	Starting Torque	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996		
	Running Pressure	973	966	960	954	949	942	935	929	923	918	913	906	900	895		
	Flow Rate, GPM	5.9	6.3	6.7	7.0	7.4	7.8	8.2	8.5	8.9	9.3	9.7	10.1	10.4	10.8		
HXT-125	OUTPUT HP(RUN)	2.6	2.7	2.9	3.1												
	Running Torque	2307	2291	2276	2263												
	Starting Torque	2852	2852	2852	2852												
	Running Pressure	1364	1354	1345	1337												
	Flow Rate, GPM	4.6	4.9	5.2	5.4												
HXT-215	OUTPUT HP(RUN)	4.6	4.9	5.2	5.5	5.8	6.1	6.4	6.6	6.9	7.2	7.4	7.7	8.0	8.2	8.5	
	Running Torque	4185	4154	4127	4103	4082	4044	4010	3979	3951	3925	3902	3881	3861	3843	3827	
	Starting Torque	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	
	Running Pressure	1923	1908	1896	1889	1875	1858	1842	1828	1815	1803	1792	1783	1774	1766	1758	
	Flow Rate, GPM	6.0	6.4	6.7	7.1	7.4	7.8	8.1	8.4	8.8	9.1	9.5	9.8	10.1	10.5	10.8	
HXT-225	OUTPUT HP(RUN)	4.6	4.9	5.2	5.5												
	Running Torque	4185	4154	4127	4103												
	Starting Torque	6105	6105	6105	6105												
	Running Pressure	1155	1147	1139	1133												
	Flow Rate, GPM	8.8	9.4	10.0	10.6												
HXT-315	OUTPUT HP(RUN)	6.4	6.8	7.2	7.6	8.0	8.4	8.7	9.1	9.4	9.8	10.1	10.4	10.0	10.0	10.0	
	Running Torque	5773	5721	5677	5637	5602	5544	5492	5445	5402	5363	5327	5244	4848	4669	4502	
	Starting Torque	16163	16020	15895	15784	15686	15524	15378	15246	15126	15016	14916	14798	14690	14589	14496	
	Running Pressure	800	793	787	782	777	769	762	755	749	744	739	727	717	707	697	
	Flow Rate, GPM	17.4	18.5	19.7	20.8	22.0	23.1	24.3	25.4	26.6	27.7	28.9	30.0	31.1	32.2	33.3	
HXT-325	OUTPUT HP(RUN)	6.4	6.8	7.2	7.6												
	Running Torque	5773	5721	5677	5637												
	Starting Torque	6430	6430	6430	6430												
	Running Pressure	1513	1500	1488	1478												
	Flow Rate, GPM	9.5	10.1	10.7	11.3												
HXT-415	OUTPUT HP(RUN)	10.3	10.9	11.6	12.2	12.9	13.5	14.0	14.6	15.0	15.0	15.0	15.0	15.0	15.0	15.0	
	Running Torque	9274	9193	9122	9059	9004	8925	8854	8789	8594	8221	7878	7563	7272	7003	6753	
	Starting Torque	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	
	Running Pressure	1265	1254	1244	1235	1228	1217	1207	1199	1172	1121	1074	1031	992	955	921	
	Flow Rate, GPM	18.4	19.5	20.7	21.8	23.0	24.2	25.3	26.5	27.6	28.7	29.8	30.9	32.1	33.2	34.3	
HXT-425	OUTPUT HP(RUN)	10.3	10.9	11.6	12.2												
	Running Torque	9274	9193	9122	9059												
	Starting Torque	25966	25739	25541	25366												
	Running Pressure	785	778	772	767												
	Flow Rate, GPM	27.7	29.6	31.5	33.4												
HXT-515	OUTPUT HP(RUN)	15.3	16.2	17.2	18.1	19.1	19.8	20.6	21.3	21.8	21.3	20.8	17.7				
	Running Torque	13750	13631	13528	13437	13355	13150	12965	12798	12490	11673	10924	8914				
	Starting Torque	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	24958				
	Running Pressure	1034	1025	1017	1010	1004	989	975	962	939	878	821	670				
	Flow Rate, GPM	32.4	34.6	36.7	38.8	40.9	43.0	45.1	47.2	49.3	51.3	53.2	55.0				
HXT-525	OUTPUT HP(RUN)	15.3	16.2	17.2													
	Running Torque	13750	13631	13528													
	Starting Torque	29580	29580	29580													
	Running Pressure	1110	1100	1092													
	Flow Rate, GPM	29.5	31.5	33.4													
HXT-615	OUTPUT HP(RUN)	23.4	24.8	24.1	23.5	22.8	22.2	21.4	20.8	20.1	18.6	16.7	15.0				
	Running Torque	21043	20852	18986	17425	15966	14728	13487	12485	11516	10194	8771	7563				
	Starting Torque	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630				
	Running Pressure	1586	1574	1433	1315	1205	1112	1018	942	869	769	662	571				
	Flow Rate, GPM	33.7	35.8	37.6	39.4	41.3	43.1	45.0	47.0	48.9	50.8	52.6	54.5				
HXT-625	OUTPUT HP(RUN)	23.4	24.8	24.1													
	Running Torque	21043	20852	18986													
	Starting Torque	51839	51839	51839													
	Running Pressure	969	960	874													
	Flow Rate, GPM	51.2	54.6	57.9													
HXT-715	OUTPUT HP(RUN)	35.0	33.8	32.5	31.3	30.0	28.7	27.5	26.3	25.0	23.7	22.3					
	Running Torque	31513	28403	25604	23208	21008	19040	17332	15786	14324	12989	11712					
	Starting Torque	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407					
	Running Pressure	1311	1181	1065	965	874	792	721	657	596	540	487					
	Flow Rate, GPM	57.9	61.4	64.9	68.4	72.0	75.6	79.3	82.9	86.6	90.3	94.0					
HXT-725	OUTPUT HP(RUN)	35.0	33.8														
	Running Torque	31513	28403														
	Starting Torque	50733	50733														
	Running Pressure	1483	1337														
	Flow Rate, GPM	51.4	54.5														

Output HP—Horsepower rating of the reducer/motor under continuous operation after load has been started.

Running Torque—Continuous output torque rating of reducer/motor (in.-lbs.)

Starting Torque—Momentary output torque available for starting (in.-lbs.)

Running Pressure—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24. (P.S.I.)

Flow Rate—Flow required for given output RPM. With oil viscosity of 300SUS @ 100°F for A10, A20 motor and 200SUS @ 100°F for B30, B40, B50 motors.



**Class III Applications—Selection of Hydrol Double Reduction Reducers**  
**Table 20—Class III Applications (Use for applications listed as Class III on G7-3).**

Reducer Size	Requirements (Read Across)	Output RPM Consult factory for Speeds below 10)															
		10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
HXT-115	OUTPUT HP(RUN)	0.3	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.6	1.7				
	Running Torque	2026	1903	1841	1804	1780	1762	1749	1714	1687	1664	1645	1629				
	Starting Torque	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996				
	Running Pressure	855	803	777	761	751	743	738	723	711	702	694	687				
HXT-125	OUTPUT HP(RUN)	0.3	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.5	1.6	1.7				
	Running Torque	2026	1903	1841	1804	1780	1762	1749	1714	1687	1664	1645	1629				
	Starting Torque	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852	2852				
	Running Pressure	1186	1125	1088	1066	1052	1041	1034	1013	997	983	972	963				
HXT-215	OUTPUT HP(RUN)	0.6	0.8	1.1	1.3	1.5	1.8	2.0	2.2	2.4	2.6	2.8	3.0				
	Running Torque	3655	3442	3335	3271	3228	3198	3175	3111	3060	3019	2984	2955				
	Starting Torque	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669				
	Running Pressure	1679	1581	1532	1503	1483	1469	1459	1429	1406	1387	1371	1357				
HXT-225	OUTPUT HP(RUN)	0.6	0.8	1.1	1.3	1.5	1.8	2.0	2.2	2.4	2.6	2.8	3.0				
	Running Torque	3655	3442	3335	3271	3228	3198	3175	3111	3060	3019	2984	2955				
	Starting Torque	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105	6105				
	Running Pressure	1009	950	921	903	891	883	876	859	845	833	824	816				
HXT-315	OUTPUT HP(RUN)	0.8	1.2	1.5	1.8	2.2	2.5	2.8	3.1	3.4	3.7	3.9	4.2				
	Running Torque	5231	4881	4706	4601	4531	4481	4443	4339	4255	4187	4130	4082				
	Starting Torque	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218	17218				
	Running Pressure	725	677	653	638	628	621	616	602	590	581	573	566				
HXT-325	OUTPUT HP(RUN)	0.8	1.2	1.5	1.8	2.2	2.5	2.8	3.1	3.4	3.7	3.9	4.2				
	Running Torque	5231	4881	4706	4601	4531	4481	4443	4339	4255	4187	4130	4082				
	Starting Torque	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430	6430				
	Running Pressure	1371	1279	1233	1206	1188	1174	1165	1137	1115	1097	1083	1070				
HXT-415	OUTPUT HP(RUN)	1.3	1.8	2.4	2.9	3.4	4.0	4.5	5.0	5.4	5.9	6.3	6.8				
	Running Torque	8004	7616	7421	7305	7227	7171	7130	6964	6832	6724	6633	6557				
	Starting Torque	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508				
	Running Pressure	1092	1039	1012	996	986	978	972	950	932	917	905	894				
HXT-425	OUTPUT HP(RUN)	1.3	1.8	2.4	2.9	3.4	4.0	4.5	5.0	5.4	5.9	6.3	6.8				
	Running Torque	8004	7616	7421	7305	7227	7171	7130	6964	6832	6724	6633	6557				
	Starting Torque	28205	28205	28205	28205	28205	28205	28205	27857	27328	26894	26534	26228				
	Running Pressure	678	645	628	618	612	607	604	590	578	569	562	555				
HXT-515	OUTPUT HP(RUN)	2.0	2.8	3.6	4.4	5.1	5.9	6.7	7.4	8.0	8.7	9.4	10.0				
	Running Torque	12794	11800	11302	11004	10805	10657	10557	10315	10122	9964	9832	9720				
	Starting Torque	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758				
	Running Pressure	962	887	850	827	812	802	794	776	761	749	739	731				
HXT-525	OUTPUT HP(RUN)	2.0	2.8	3.6	4.4	5.1	5.9	6.7	7.4	8.0	8.7	9.4	10.0				
	Running Torque	12794	11800	11302	11004	10805	10657	10557	10315	10122	9964	9832	9720				
	Starting Torque	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580	29580				
	Running Pressure	1033	952	912	888	872	861	852	833	817	804	794	785				
HXT-615	OUTPUT HP(RUN)	3.1	4.3	5.5	6.7	7.9	9.1	10.3	11.3	12.3	13.3	14.3	15.4				
	Running Torque	19632	18120	17363	16910	16607	16391	16229	15840	15529	15275	15063	14884				
	Starting Torque	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630				
	Running Pressure	1482	1368	1311	1276	1254	1237	1225	1196	1172	1153	1137	1124				
HXT-625	OUTPUT HP(RUN)	3.1	4.3	5.5	6.7	7.9	9.1	10.3	11.3	12.3	13.3	14.3	15.4				
	Running Torque	19632	18120	17363	16910	16607	16391	16229	15840	15529	15275	15063	14884				
	Starting Torque	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839	51839				
	Running Pressure	904	835	800	779	765	755	747	730	715	704	694	686				
HXT-715	OUTPUT HP(RUN)	4.5	6.3	8.2	10.0	11.8	13.6	15.4	16.9	18.5	20.0	21.5	23.0				
	Running Torque	28519	26628	25683	25115	24737	24467	24265	23711	23269	22907	22605	22350				
	Starting Torque	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407				
	Running Pressure	1186	1108	1068	1045	1029	1018	1009	986	968	953	940	929				
HXT-725	OUTPUT HP(RUN)	4.5	6.3	8.2	10.0	11.8	13.6	15.4	16.9	18.5	20.0	21.5	23.0				
	Running Torque	28519	26628	25683	25115	24737	24467	24265	23711	23269	22907	22605	22350				
	Starting Torque	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733	50733				
	Running Pressure	1342	1253	1208	1182	1164	1151	1142	1116	1095	1078	1064	1052				

**Output HP**—Horsepower rating of the reducer/motor under continuous operation after load has been started.

**Running Torque**—Continuous output torque rating of reducer/motor (in.-lbs.)

**Starting Torque**—Momentary output torque available for starting (in.-lbs.)

**Running Pressure**—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24, (P5.1.)

**Flow Rate**—Flow required for given output RPM. With oil viscosity of 300SUS @ 100°F. for A10, A20 motor and 200SUS @ 100°F. for B30, B40, B50 motors.

# Class III Applications—Selection of Hydrol Double Reduction Reducers

Table 20—Class III Applications (Use for applications listed as Class III on G7-3).

Reducer Size	Requirements (Read Across)	Output RPM Consult factory for Speeds below 10)															
		70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
HXT-115	OUTPUT HP(RUN)	1.8	1.9	2.0	2.1	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2		
	Running Torque	1615	1603	1593	1584	1576	1563	1551	1541	1532	1523	1515	1504	1494	1485		
	Starting Torque	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996	3996		
	Running Pressure	681	676	672	668	665	659	654	650	646	642	639	635	630	626		
HXT-125	OUTPUT HP(RUN)	1.8	1.9	2.0	2.1												
	Running Torque	1615	1603	1593	1584												
	Starting Torque	2852	2852	2852	2852												
	Running Pressure	955	948	941	936												
HXT-215	OUTPUT HP(RUN)	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	
	Running Torque	2930	2908	2889	2872	2857	2831	2807	2789	2765	2748	2731	2716	2703	2690	2679	
	Starting Torque	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	3669	
	Running Pressure	1346	1336	1327	1319	1313	1300	1289	1279	1270	1262	1255	1248	1242	1236	1231	
HXT-225	OUTPUT HP(RUN)	3.3	3.5	3.7	3.9												
	Running Torque	2930	2908	2889	2872												
	Starting Torque	6105	6105	6105	6105												
	Running Pressure	809	803	798	793												
HXT-315	OUTPUT HP(RUN)	4.5	4.8	5.0	5.3	5.6	5.9	6.1	6.4	6.6	6.9	7.1	7.3	7.6	7.8	8.1	
	Running Torque	4041	4005	3974	3946	3922	3891	3845	3812	3782	3754	3729	3700	3672	3647	3624	
	Starting Torque	16163	16020	15895	15784	15686	15578	15476	15378	15284	15196	15112	15030	14950	14872	14796	
	Running Pressure	460	455	451	447	444	439	435	432	429	426	423	420	417	414	411	
HXT-325	OUTPUT HP(RUN)	4.5	4.8	5.0	5.3												
	Running Torque	4041	4005	3974	3946												
	Starting Torque	6430	6430	6430	6430												
	Running Pressure	1059	1050	1042	1034												
HXT-415	OUTPUT HP(RUN)	7.2	7.7	8.1	8.6	9.0	9.4	9.8	10.3	10.7	11.1	11.5	11.9	12.3	12.7	13.1	
	Running Torque	6492	6435	6385	6341	6303	6247	6197	6152	6112	6074	6040	5994	5951	5912	5875	
	Starting Torque	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	17508	
	Running Pressure	885	878	871	865	860	852	845	839	833	828	824	819	814	809	804	
HXT-425	OUTPUT HP(RUN)	7.2	7.7	8.1	8.6												
	Running Torque	6492	6435	6385	6341												
	Starting Torque	29866	29738	29541	29366												
	Running Pressure	550	545	541	537												
HXT-515	OUTPUT HP(RUN)	10.7	11.4	12.0	12.7	13.4	13.9	14.4	14.9	15.5	16.0	16.5	17.0	17.5	18.0	18.5	
	Running Torque	9625	9542	9470	9406	9349	9295	9243	9192	9142	9094	9047	8999	8953	8908	8864	
	Starting Torque	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	31758	
	Running Pressure	724	717	712	707	703	698	692	687	682	677	672	667	662	657	652	
HXT-525	OUTPUT HP(RUN)	10.7	11.4	12.0													
	Running Torque	9625	9542	9470													
	Starting Torque	29940	29950	29950													
	Running Pressure	777	770	764													
HXT-615	OUTPUT HP(RUN)	16.4	17.4	18.4	19.4	20.4	21.3	21.4	20.8	20.1	19.6	19.0	18.4	17.8	17.2	16.6	
	Running Torque	14730	14597	14480	14377	14286	14142	13987	13825	13658	13487	13313	13137	12959	12779	12597	
	Starting Torque	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	31630	
	Running Pressure	1112	1102	1093	1085	1078	1068	1058	1048	1038	1028	1018	1008	998	988	978	
HXT-625	OUTPUT HP(RUN)	16.4	17.4	18.4													
	Running Torque	14730	14597	14480													
	Starting Torque	51639	51639	51639													
	Running Pressure	678	672	667													
HXT-715	OUTPUT HP(RUN)	24.6	26.1	27.8	29.2	30.0	28.7	27.5	26.3	25.0	23.7	22.3					
	Running Torque	22131	21941	21775	21629	21508	21400	21302	21212	21128	21049	20974	20902	20832	20764	20698	
	Starting Torque	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	57407	
	Running Pressure	920	913	906	900	894	888	882	876	870	864	858	852	846	840	834	
HXT-725	OUTPUT HP(RUN)	24.58	26.11														
	Running Torque	22131	21941														
	Starting Torque	50733	50733														
	Running Pressure	1042	1033														

Output HP—Horsepower rating of the reducer/motor under continuous operation after load has been started.

Running Torque—Continuous output torque rating of reducer/motor (in-lbs.)

Starting Torque—Momentary output torque available for starting (in-lbs.)

Running Pressure—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24 (P.S.I.)

Flow Rate—Flow required for given output RPM. With oil viscosity of 300SUS @ 100°F. for A10, A20 motor and 200SUS @ 100°F. for B30, B40, B50 motors.



# Class I Applications— Selection of Hydrol Single Reduction Reducers

Table 23—Class I Applications (Use for appropriate applications listed on page G7-3.)

Application	Basic Size	Requirements (Read Across)	Output RPM (Consult Factory for Speeds below 90)													
			90	100	110	120	130	140	150	160	180	200	220	250	300	350
Class I	HXT-105	OUTPUT HP(RUN)	3.8	4.0	4.3	4.6	4.9	5.2	5.4	5.7	6.3	6.8	7.0	7.3	7.7	8.0
		Running Torque	2633	2546	2474	2415	2364	2321	2283	2251	2196	2152	2005	1828	1611	1447
		Starting Torque	5266	5091	4948	4829	4728	4642	4567	4501	4392	4305	4010	3655	3223	2894
		Running Pressure	949	917	891	870	852	836	823	811	791	775	722	658	580	521
	HXT-205	Flow Rate, GPM	9.3	10.1	10.9	11.8	12.6	13.5	14.3	15.2	16.9	18.6	20.3	22.8	27.1	31.3
		OUTPUT HP(RUN)	6.0	6.3	6.6	7.0	7.3	7.7	8.0	8.4	9.1	9.8	10.1	10.5	11.3	12.0
		Running Torque	4167	3969	3807	3672	3558	3460	3375	3301	3178	3079	2887	2656	2374	2152
		Starting Torque	6239	6239	6239	6239	6239	6239	6239	6239	6239	6158	5773	5312	4748	4304
		Running Pressure	1595	1519	1457	1405	1362	1324	1292	1263	1216	1178	1105	1016	909	824
		Flow Rate, GPM	9.8	10.5	11.2	12.0	12.7	13.5	14.3	15.0	16.6	18.2	19.7	22.1	26.0	30.0
	HXT-305	OUTPUT HP(RUN)	9.0	9.5	9.9	10.4	10.9	11.4	11.8	12.3	13.3	14.2	14.5	15.0	15.8	16.3
		Running Torque	6288	5959	5689	5464	5274	5111	4969	4846	4640	4475	4160	3782	3319	2935
		Starting Torque	11783	11783	11378	10928	10548	10222	9939	9692	9279	8950	8319	7563	6639	5870
		Running Pressure	1274	1207	1153	1107	1069	1036	1007	982	940	907	843	766	673	595
	HXT-405	Flow Rate, GPM	17.2	18.5	20.0	21.4	22.8	24.3	25.8	27.3	30.3	33.3	36.2	40.7	48.2	55.8
		OUTPUT HP(RUN)	13.2	14.2	15.2	16.2	17.2	18.2	19.2	20.2	22.2	24.2	25.2	26.8	29.4	29.9
		Running Torque	9244	8950	8709	8508	8339	8193	8067	7957	7773	7626	7231	6756	6176	5393
		Starting Torque	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	10786
	HXT-505	Running Pressure	1850	1791	1743	1702	1669	1639	1614	1592	1555	1526	1447	1352	1236	1079
		Flow Rate, GPM	18.8	20.2	21.6	23.1	24.6	26.1	27.6	29.1	32.2	35.2	38.2	42.7	50.2	57.7
		OUTPUT HP(RUN)	20.6	21.9	23.2	24.4	25.7	27.0	28.3	29.6	32.1	34.7	35.7	37.3	39.9	41.4
		Running Torque	14426	13791	13272	12839	12473	12159	11887	11649	11252	10935	10239	9403	8382	7464
	HXT-505	Starting Torque	21781	21781	21781	21781	21781	21781	21781	21781	21781	21781	21781	21781	21781	21781
		Running Pressure	1581	1512	1455	1407	1367	1333	1303	1277	1233	1199	1122	1031	919	818
		Flow Rate, GPM	30.6	33.2	35.9	38.6	41.4	44.2	46.9	49.7	55.3	61.0	66.5	74.8	88.8	102.8
		Flow Rate, GPM	30.6	33.2	35.9	38.6	41.4	44.2	46.9	49.7	55.3	61.0	66.5	74.8	88.8	102.8

**Output HP**—Horsepower rating of the reducer/motor under continuous operation after load has been started.

**Running Torque**—Continuous output torque rating of reducer/motor (in.-lbs.)

**Starting Torque**—Momentary output torque available for starting (in.-lbs.)

**Running Pressure**—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24. (P.S.I.)

**Flow Rate**—Flow required for given output RPM. With oil viscosity of 300SUS @ 100°F. for A10, A20 motor and 200SUS @ 100°F. for B30, B40, B50 motors.

## Class II Applications— Selection of Hydroil Single Reduction Reducers

Table 23—Class II Applications (Use for appropriate applications listed on page G7-3.)

Basic Size	Requirements (Read Across)	Output RPM (Consult Factory for Speeds below 90)														
		90	100	110	120	130	140	150	160	180	200	220	250	300	350	400
HXT-105	OUTPUT HP(RUN)	2.7	2.9	3.1	3.3	3.5	3.7	3.9	4.1	4.5	4.9	5.0	5.2	5.5	5.7	6.0
	Running Torque	1881	1818	1767	1725	1689	1658	1631	1608	1569	1537	1432	1306	1151	1033	945
	Starting Torque	5266	5091	4948	4829	4728	4642	4567	4501	4392	4305	4010	3655	3223	2894	2647
	Running Pressure	678	655	637	621	608	597	588	579	565	554	516	470	415	372	341
	Flow Rate, GPM	8.9	9.7	10.6	11.4	12.3	13.1	14.0	14.8	16.6	18.3	20.0	22.5	26.8	31.1	35.4
HXT-205	OUTPUT HP(RUN)	4.3	4.5	4.7	5.0	5.2	5.5	5.7	6.0	6.5	7.0	7.2	7.5	8.1	8.5	9.0
	Running Torque	2976	2835	2719	2623	2541	2472	2411	2358	2270	2199	2062	1897	1696	1537	1418
	Starting Torque	6239	6239	6239	6239	6239	6239	6239	6239	6239	6158	5773	5312	4748	4304	3971
	Running Pressure	1139	1085	1041	1004	973	946	923	902	869	842	789	726	649	588	543
	Flow Rate, GPM	9.1	9.8	10.6	11.4	12.1	12.9	13.7	14.5	16.1	17.7	19.3	21.6	25.6	29.6	33.7
HXT-305	OUTPUT HP(RUN)	6.4	6.8	7.1	7.4	7.8	8.1	8.4	8.8	9.5	10.1	10.4	10.7	11.3	11.6	12.0
	Running Torque	4492	4256	4064	3903	3767	3651	3550	3461	3314	3196	2971	2701	2371	2097	1891
	Starting Torque	11783	11783	11378	10928	10548	10222	9939	9692	9279	8950	8319	7563	6639	5870	5294
	Running Pressure	910	862	823	791	763	740	719	701	672	648	602	547	480	425	383
	Flow Rate, GPM	16.2	17.7	19.1	20.6	22.1	23.6	25.1	26.6	29.6	32.7	35.6	40.2	47.8	55.4	63.0
HXT-405	OUTPUT HP(RUN)	9.4	10.1	10.9	11.6	12.3	13.0	13.7	14.4	15.9	17.3	18.0	19.1	21.0	21.4	21.8
	Running Torque	6603	6393	6221	6077	5956	5852	5762	5684	5552	5447	5165	4826	4412	3852	3433
	Starting Torque	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	10786	9611
	Running Pressure	1321	1279	1245	1216	1192	1171	1153	1137	1111	1090	1033	966	883	771	687
	Flow Rate, GPM	17.4	18.9	20.4	21.9	23.4	24.9	26.5	28.0	31.1	34.2	37.2	41.7	49.3	56.9	64.6
HXT-505	OUTPUT HP(RUN)	14.7	15.6	16.5	17.5	18.4	19.3	20.2	21.1	23.0	24.8	25.5	26.6	28.5	29.6	30.7
	Running Torque	10304	9851	9480	9171	8909	8685	8491	8321	8037	7811	7313	6717	5987	5331	4839
	Starting Torque	21781	21781	21781	21781	21781	21781	21781	21781	21781	21781	20477	18807	16765	14928	13550
	Running Pressure	1130	1080	1039	1005	977	952	931	912	881	856	802	736	656	584	530
	Flow Rate, GPM	29.2	31.9	34.7	37.4	40.2	43.0	45.8	48.6	54.3	59.9	65.5	73.9	88.0	102.1	116.3

**Output HP**—Horsepower rating of the reducer/motor under continuous operation after load has been started.

**Running Torque**—Continuous output torque rating of reducer/motor (in.-lbs.)

**Starting Torque**—Momentary output torque available for starting (in.-lbs.)

**Running Pressure**—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24. (P.S.I.)

**Flow Rate**—Flow required for given output RPM. With oil viscosity of 300SUS @ 100°F. for A10, A20 motor and 200SUS @ 100°F.

for B30, B40, B50 motors.



## Class III Applications— Selection of Hydrol Single Reduction Reducers

Table 23—Class III Applications (Use for appropriate applications listed on page G7-3.)

Applica- tion	Basic Size	Requirements (Read Across)	Output RPM (Consult Factory for Speeds below 90)															
			90	100	110	120	130	140	150	160	180	200	220	250	300	350	400	
HXT-105		OUTPUT HP(RUN)	1.9	2.0	2.2	2.3	2.4	2.6	2.7	2.9	3.1	3.4	3.5	3.6	3.8	4.0	4.2	
		Running Torque	1317	1273	1237	1207	1182	1160	1142	1125	1098	1076	1002	914	806	723	637	
		Starting Torque	5266	5091	4948	4829	4728	4642	4567	4501	4392	4305	4010	3655	3223	2894	2610	
		Running Pressure	474	459	446	435	426	418	411	405	396	388	361	329	290	261	231	
		Flow Rate, GPM	8.6	9.4	10.3	11.1	12.0	12.8	13.7	14.6	16.3	18.0	19.7	22.3	26.6	30.9	35.2	
HXT-205		OUTPUT HP(RUN)	3.0	3.1	3.3	3.5	3.7	3.8	4.0	4.2	4.5	4.9	5.0	5.3	5.7	6.0	6.3	
		Running Torque	2083	1984	1904	1836	1779	1730	1688	1651	1589	1539	1443	1328	1187	1076	979	
		Starting Torque	6239	6239	6239	6239	6239	6239	6239	6239	6239	6158	5773	5312	4748	4304	3910	
		Running Pressure	797	759	728	703	681	662	646	632	608	589	552	508	454	412	373	
		Flow Rate, GPM	8.6	9.4	10.1	10.9	11.7	12.5	13.3	14.1	15.7	17.3	18.9	21.3	25.3	29.4	33.7	
HXT-305		OUTPUT HP(RUN)	4.5	4.7	5.0	5.2	5.4	5.7	5.9	6.2	6.6	7.1	7.3	7.5	7.9	8.2	8.5	
		Running Torque	3144	2979	2844	2732	2637	2555	2485	2423	2320	2237	2080	1891	1660	1468	1317	
		Starting Torque	11783	11783	11378	10928	10548	10222	9939	9692	9279	8950	8319	7563	6639	5870	5207	
		Running Pressure	637	604	576	554	534	518	503	491	470	453	421	383	336	297	261	
		Flow Rate, GPM	15.6	17.0	18.5	20.0	21.5	23.0	24.5	26.1	29.1	32.2	35.2	39.8	47.4	55.1	62.8	
HXT-405		OUTPUT HP(RUN)	6.6	7.1	7.6	8.1	8.6	9.1	9.6	10.1	11.1	12.1	12.6	13.4	14.7	15.0	15.5	
		Running Torque	4622	4475	4354	4254	4169	4097	4034	3978	3887	3813	3615	3378	3088	2697	2407	
		Starting Torque	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	11933	10786	9640	
		Running Pressure	925	895	871	851	834	820	807	796	778	763	723	676	618	540	474	
		Flow Rate, GPM	16.5	18.0	19.5	21.0	22.5	24.1	25.6	27.1	30.2	33.3	36.4	41.0	48.7	56.3	64.8	
HXT-505		OUTPUT HP(RUN)	10.3	10.9	11.6	12.2	12.9	13.5	14.1	14.8	16.1	17.4	17.9	18.6	19.9	20.7	21.3	
		Running Torque	7213	6896	6636	6419	6236	6079	5943	5824	5626	5467	5119	4702	4191	3732	3317	
		Starting Torque	21781	21781	21781	21781	21781	21781	21781	21781	21781	21781	20477	18807	16765	14928	13507	
		Running Pressure	791	756	727	704	684	666	652	638	617	599	561	515	459	409	373	
		Flow Rate, GPM	28.2	31.0	33.7	36.5	39.3	42.2	45.0	47.8	53.5	59.2	64.8	73.2	87.4	101.6	115.2	

**Output HP**—Horsepower rating of the reducer/motor under continuous operation after load has been started.

**Running Torque**—Continuous output torque rating of reducer/motor (in.-lbs.)

**Starting Torque**—Momentary output torque available for starting (in.-lbs.)

**Running Pressure**—Motor pressure required to generate running torque. This will start loads not to exceed 75% of the running load.

For greater starting requirements, motor pressure may be increased—see Table 24. (P.S.I.)

**Flow Rate**—Flow required for given output RPM. With oil viscosity of 300SUS @ 100°F. for A10, A20 motor and 200SUS @ 100°F. for B30, B40, B50 motors.

## Selection of Hydroil Speed Reducer Size (Cont.)

**Table 24—Maximum Hydraulic Motor Pressures Available for Starting**

Basic Double Reduction Reducer Size	Basic Single Reduction Reducer Size	Pressures may be increased to:
315 415 425 525	105 205	2500 PSI*
715	505	2500 PSI*
All others up thru 725	305 405	2000 PSI*

\* Or to  $2.37 \times$  the pressure given in tables 18, 19, 20 or 23 for Class I,  $3.32$  for Class II,  $4.75$  for Class III—whichever is the least.

## Hydroil Vane Motors

Hydroil Vane Motors can be run in either direction of rotation. Flow into port A (see drawing) will result in clockwise rotation as viewed from shaft end of motor. Flow into port B will result in counterclockwise rotation.

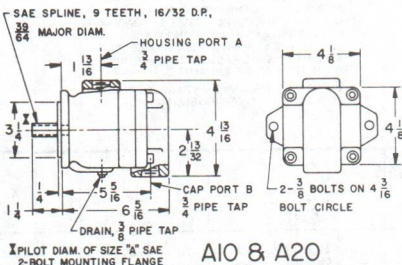
Inlet and outlet ports on sizes A10 and A20 will accommodate standard tapered pipe fittings. Larger sizes will accommodate SAE split flanges.

**Drains should be connected to tank with connections and hoses capable of withstanding 50 psi. No drain is required on sizes A10 and A20 if the housing port is the low pressure port and is never subjected to more than 20 psi, in which case the motor drains internally.**

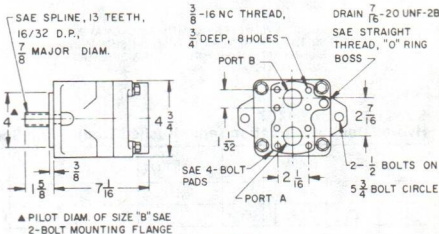
**Note**—For a more complete description of Hydroil Vane Motors with photographs of each type, see bottom of page G7-1. For relative use with Hydroil reducers see tables on pages G7-14 thru G7-19.

### Hydroil Vane Motor

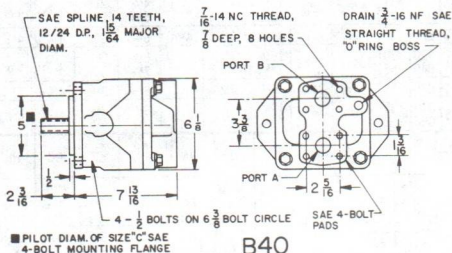
Motor Size	Part Number	Wt.	Motor Size	Part Number	Wt.
A10	444049	11	B40	444055	55
A20	444050	11	B50	444056	106
B30	444054	30			



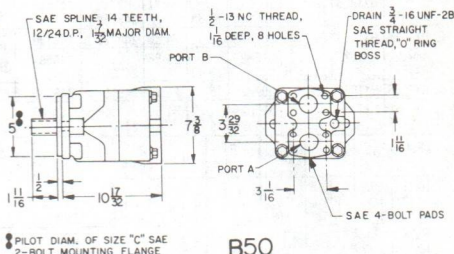
**A10 & A20**



**B30**



**B40**

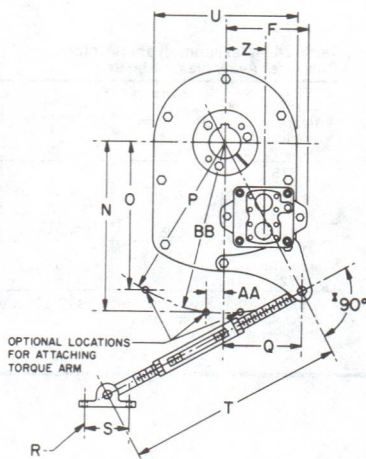


**B50**



## Sizes HXT1 thru HXT7

### Hydroil Double Reduction Taper Bushed Torque-Arm Speed Reducers



- 2 THE IDEAL POSITION FOR THE TORQUE-ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF ATTACHMENT OF THE TORQUE-ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. **CAUTION:** EXCEEDING THE  $\pm 30^\circ$  VARIANCE OF THE TORQUE-ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

MOTOR MAY BE ROTATED ON REDUCER IN 60° INCREMENTS FROM POSITION SHOWN.

## Hydroil Double Reduction Taper Bushed Torque-Arm Speed Reducers

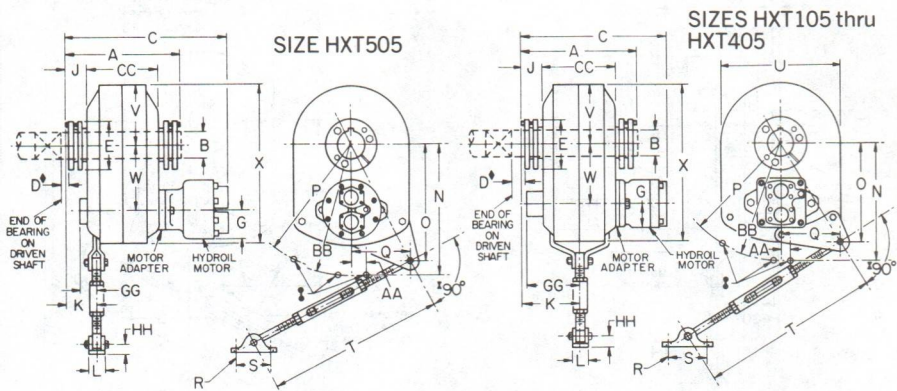
**Note:** All reducers on this page require bushings. Hydroil Torque-Arm reducers for vertical or inclined shafts are available on order—consult factory. Reducer includes motor adapter.

**Note:** Maximum RPM of shaft, see page G5-9.

- ♥ See page G5-23 for bore and keyseat information.  
 Note: When ordering bushings separately, see page G5-23.  
 ♣ Made-to-order.

# Sizes HXT105 thru HXT505

## Hydroil Single Reduction Taper Bushed Torque-Arm Speed Reducers



REDUCER WILL OPERATE SATISFACTORILY AT 90° OR 180° FROM NORMAL POSITION SHOWN IN FRONT VIEW BY RELOCATING BREATHER AND DRAIN PLUGS.

1. OPTIONAL LOCATIONS FOR ATTACHING TORQUE-ARM

2. RECOMMENDED MINIMUM DISTANCE TO LOOSEN BUSHING USING BUSHING SCREWS AS JACK SCREWS.

3. THE IDEAL POSITION FOR THE TORQUE-ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF

ATTACHMENT OF THE TORQUE-ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. CAUTION: EXCEEDING THE ±30° VARIANCE OF THE TORQUE-ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

### Sizes HXT105 thru HXT505

#### Hydroil Single Reduction Taper Bushed Torque-Arm Speed Reducers

Reducer Size	AGMA Code	Gear Ratio	Part Number	Wt.	Hydroil Motor		A	B Max. Bore	C	D	E	G	J	K	L
					Size	Wt.									
HXT105	107H05	5.62	241085	37	B30	30	7 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	2 <sup>9</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>
HXT205	115H05	5.29	242251	47	B30	30	7 <sup>5</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	3 <sup>2</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>
HXT305	203H05	5.60	243375	69	B40	55	8 <sup>25</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>16</sub>	17 <sup>2</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	4 <sup>13</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>
HXT405	207H05	5.65	244347	88	B40	55	9 <sup>1</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>
HXT505	215H05	5.67	245377	145	B50	106	10 <sup>7</sup> / <sub>32</sub>	2 <sup>15</sup> / <sub>16</sub>	22	1 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>59</sup> / <sub>64</sub>	2 <sup>2</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>16</sub>

Ref. No.	N	O	P Rad.	Q	R Bolt	S	T		U	V	W	X	AA	BB Rad.	CC	GG	HH
							Min.	Max.									
HXT105	.....	7 <sup>1</sup> / <sub>4</sub>	8	3 <sup>13</sup> / <sub>32</sub>	3/8	2 <sup>1</sup> / <sub>2</sub>	23 <sup>13</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>15</sup> / <sub>16</sub>	.....	.....	4 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>64</sub>	15 <sup>1</sup> / <sub>16</sub>
HXT205	8 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	7/16	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	11 <sup>13</sup> / <sub>32</sub>	1 <sup>13</sup> / <sub>16</sub>	9	4 <sup>9</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>64</sub>	1 <sup>1</sup> / <sub>16</sub>
HXT305	10 <sup>5</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>16</sub>	7/16	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>32</sub>	10 <sup>9</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>
HXT405	11 <sup>25</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>16</sub>	11 <sup>13</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4	29 <sup>1</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>32</sub>	11 <sup>27</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>8</sub>	3 <sup>15</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>4</sub>
HXT505	14 <sup>25</sup> / <sub>32</sub>	12 <sup>13</sup> / <sub>32</sub>	14 <sup>17</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	4	29 <sup>1</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>16</sub>	2 <sup>29</sup> / <sub>32</sub>	14 <sup>13</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>

Note: All reducers on this page require bushings. Hydroil Torque-Arm reducers for vertical or inclined shafts are available on order—consult factory. Reducer includes motor adapter.

♣ Made-to-order.

Note: Maximum RPM of shaft, see page G5-9.

♥ See page G5-23 for bore and keyseat information.

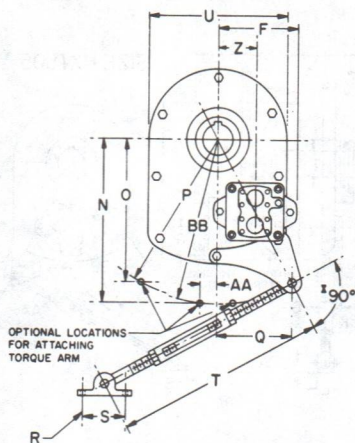
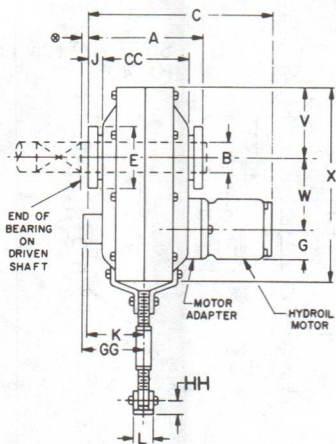
Note: When ordering bushings separately, see page G5-23.



# Sizes HXT1 thru HXT17

## Hydroil Double Reduction Straight Bore Torque-Arm Speed Reducers

### For the Replacement Market



REDUCER WILL OPERATE SATISFACTORILY AT 90° OR 180° FROM NORMAL POSITION SHOWN IN RIGHT HAND VIEW BY RELOCATING BREATHER AND DRAIN PLUGS.

⊗ KEEP AS CLOSE AS POSSIBLE.

MOTOR MAY BE ROTATED ON REDUCER IN 60° INCREMENTS FROM POSITION SHOWN.

⊥ THE IDEAL POSITION FOR THE TORQUE ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF

ATTACHMENT OF THE TORQUE ARM TO THE REDUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. CAUTION: EXCEEDING THE ±30° VARIANCE OF THE TORQUE ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

## Sizes HXT1 thru HXT7

### Hydroil Double Reduction Straight Bore Torque-Arm Speed Reducers

Reducer Size		AGMA Code		Gear Ratio		Part Number		Wt.	Hydroil Motor		A	B Max. Bore ★	C	E	F	G	J	K	L
Series		Series		Series		Series			Size	Wt.									
15	25	15	25	15	25	15	25												
HXT115	HXT125	107H15	107H25	15.35	25.64	241077	241078	39	A10	11	5 5/8	1 7/8	12 1/2	3 1/8	4 1 3/32	2 1 3/32	9/16	2 1 3/8	1 1/8
HXT215	HXT225	115H15	115H25	14.10	23.46	242094	242095	47	A20	11	5 13/16	1 1 1/8	12 3/4	3 1/8	4 1 1/8	2 1 3/32	5/8	2 29/32	1 1/4
HXT315	HXT325	203H15	203H25	14.88	24.71	243362	243363	80	A20	11	6 1/8	2 3/8	14 1/2	4	4 7/8	2 1 1/2	5/8	3 7/16	1 1/4
HXT415	HXT425	207H15	207H25	15.13	24.38	244137	244138	98	B30	30	7 1/8	2 7/8	15 5/8	4 3/8	6 1/8	2 1/2	27/32	3 39/64	1 7/8
HXT515	HXT525	215H15	215H25	15.40	25.56	245514	245515	151	B30	30	8 1/8	3 1/8	15 1/8	5 1/8	6 1/2	2 1/2	1	4 3/8	1 7/8
HXT615	HXT625	307H15	307H25	15.33	25.13	246162	246163	215	B40	55	9 5/8	3 7/8	17 1 1/8	5 5/8	8 3/4	3 1/8	1	4 1 3/8	2 1/4
HXT715	HXT725	315H15	315H25	15.23	24.59	247172	247173	380	B40	55	10 29/32	3 1 1/8	18 3/8	6 1 1/8	9 5/8	3 1 1/8	1 9/16	5 25/64	2 3/4
Ref. No.	N	O	P Rad.	Q	R Bolt	S	T		U	V	W	X	Z	AA	BB Rad.	CC	GG	HH	
							Min.	Max.											
HXT1	8 1 1/8	7 1/4	8	3 1/2	3/8	2 1/2	23 1/2	29 1/8	7 1/8	3 3/4	3 3/8	9 1/8	1 29/32	9	4 1/2	2 1/8	1 1/8		
HXT2	8 1 1/8	7 1/2	8 3/4	4 1/2	7/16	3	26 1/8	32 1/8	8 1/8	4 1/8	3 3/4	11 1/2	2 1/8	10 1/8	4 1/2	2 1/8	1 1/8		
HXT3	10 1/8	8 1/8	10 5/8	4 1/2	7/16	3	26 1/8	32 1/8	9 1/4	4 1/8	4 1/8	12 1/2	2 1/8	10 1/8	4 1/2	2 1/8	1 1/8		
HXT4	11 1/8	10 1/8	11 1/8	5 1/2	1/2	4	29 1/8	35 1/8	10 1/8	5 1/2	4 29/32	15 1/8	2 1/4	1 1/2	11 7/32	6 1/8	3 1/2		
HXT5	13 1/8	12 1/8	13 1/8	6 1/8	1/2	4	29 1/8	35 1/8	13 1/8	6 1/8	5 1/8	18 1/8	3 1/8	1	14 1/2	6 1/8	4 29/64		
HXT6	15 1/8	13 1/8	15 1/8	7 3/8	5/8	4 1/4	29 1/8	35 1/8	15 1/8	7 9/16	6 1/4	21 1/8	4 3/2	1 1/8	15 1/8	7 3/8	4 1/8		
HXT7	18 1/8	15 1/8	18 1/8	8 1/8	5/8	4 1/4	29 1/8	35 1/8	18 3/8	9 1/8	8 1/8	25 1/8	5 1/8	1 1/4	18 7/8	8 1/2	4 1 1/8		

Note: Reducer includes motor adapter. When ordering bushings separately, see page G5-28.  
\* Made-to-order.

Note: Hydroil reducers for vertical or inclined shafts are available on order. Consult factory.  
\* No bushings required for these bores. See page G5-28 for bore and keyseat information.

### Sizes HXT105 thru HXT505



SIZES HXT105  
THRU HXT405

ⓧ KEEP AS CLOSE AS POSSIBLE

**I** THE IDEAL POSITION FOR THE TORQUE-ARM IS AT RIGHT ANGLES TO A LINE BETWEEN THE POINT OF ATTACHMENT OF THE TORQUE-ARM TO THE RE-

DUCER AND THE OUTPUT SHAFT. THIS MAY VARY UP TO 30° EITHER WAY. **CAUTION:** EXCEEDING THE  $\pm 30^\circ$  VARIANCE OF THE TORQUE-ARM COULD RESULT IN EXCESSIVE REACTION LOAD AND RESULT IN DAMAGE TO THE EQUIPMENT.

1. OPTIONAL POSITION FOR ATTACHING TORQUE-ARM

**Sizes HXT105 thru HXT505**

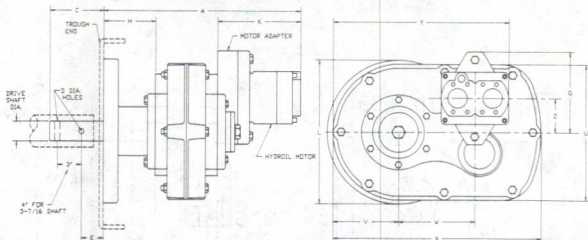
Reducer Size	AGMA Code	Gear Ratio	Part Number	Hydroil Motor		A	B Max. Bore ★	C	E	G	J	K	L	N	O
				Size	Wt.										
HXT105	107H05	5.62	241089♣	B30	30	5 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	14 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	<sup>9</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	.....	7 <sup>1</sup> / <sub>4</sub>
HXT205	115H05	5.29	242255	B30	30	5 <sup>13</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	14 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	<sup>9</sup> / <sub>8</sub>	2 <sup>29</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	8 <sup>15</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>
HXT305	203H05	5.60	243381	B40	55	6 <sup>1</sup> / <sub>8</sub>	2 <sup>9</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	<sup>9</sup> / <sub>8</sub>	3 <sup>37</sup> / <sub>64</sub>	1 <sup>1</sup> / <sub>4</sub>	10 <sup>15</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>
HXT405	207H05	5.65	244349♠	B40	55	7 <sup>13</sup> / <sub>16</sub>	2 <sup>11</sup> / <sub>16</sub>	17 <sup>23</sup> / <sub>32</sub>	4 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	<sup>27</sup> / <sub>32</sub>	3 <sup>29</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>16</sub>	11 <sup>25</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>16</sub>
HXT505	215H05	5.67	245381♣	B50	106	8 <sup>3</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	3 <sup>11</sup> / <sub>16</sub>	1	1 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	14 <sup>25</sup> / <sub>32</sub>	12 <sup>19</sup> / <sub>32</sub>
Ref. No.	P Rad.	Q	R Bolt	S	T		U	V	W	X	AA	BB Rad.	CC	GG	HH
					Min.	Max.									
HXT105	8	3 <sup>13</sup> / <sub>32</sub>	3/8	2 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>15</sup> / <sub>16</sub>	.....	.....	4 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>64</sub>	<sup>15</sup> / <sub>16</sub>
HXT205	8 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	7/16	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	11 <sup>13</sup> / <sub>32</sub>	<sup>13</sup> / <sub>16</sub>	9	4 <sup>9</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>64</sub>	1 <sup>1</sup> / <sub>16</sub>
HXT305	10 <sup>9</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>16</sub>	7/16	3	26 <sup>15</sup> / <sub>16</sub>	32 <sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	12 <sup>7</sup> / <sub>16</sub>	<sup>31</sup> / <sub>32</sub>	10 <sup>9</sup> / <sub>16</sub>	5 <sup>8</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>
HXT405	11 <sup>15</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>2</sub>	1/2	4	29 <sup>9</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>32</sub>	11 <sup>27</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>8</sub>	3 <sup>15</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>4</sub>
HXT505	14 <sup>17</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>2</sub>	1/2	4	29 <sup>9</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	6 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>8</sub>	2 <sup>13</sup> / <sub>32</sub>	14 <sup>13</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>

**Note:** Hydroil reducers for vertical or inclined shafts are available on order, consult factory.

★ No bushing required for these bores. See page G5-28 for bore and keyseat information.



# Double Reduction Hydroil Screw Conveyor Drives



## HSCXT1 thru HSCXT7 Double Reduction Hydroil Screw Conveyor Drives

Basic Drive No.	Drive Shaft Diam.	To Fit Screw Diam.	Hydroil Motor		Parts When ordering Separately															
					Reducer*		CEMA Drive Shaft*										Adapter Assy.▲			
					Part Number		Wt.	Size			Part No.	Wt.	C	D	E	Size	Part No.	Wt.		
HSCXT1	1 1/2	6, 9	125	A10	11	351191	351192	46	C1x1 1/2	351094	7.2	6	33/64	2 1/8	C1A	351086	17			
	2 27/16	9, 12, 14							C1x2	351095	9.1	6	41/64	2 1/8						
	3	12 thru 20	115	A20					C1x3	351097	12.5	6 11/16	41/64	2 3/4				C1B	351087	22
HSCXT2	1 1/2	6, 9	225	A20	11	352191	352192	58	C2x1 1/2	352090	11.4	6	33/64	2 1/8	C2A	352052	20			
	2 27/16	9, 12, 14							C2x2	352091	13.8	6	41/64	2 1/8						
	3	12 thru 20	215	C2x2 7/16					352092	17.3	6 11/16	41/64	2 3/4	C2B				352053	25	
HSCXT3	1 1/2	9	325	A20	11	353192	353193	90	C3x1 1/2	353042	13.5	6	33/64	2 1/8	C3	353047	27			
	2 27/16	9, 12, 14							C3x2	353043	16.0	6	41/64	2 1/8						
	3	12 thru 20	315	B30					30	C3x2 7/16	353044	19.5	6 11/16	41/64				2 3/4		
HSCXT4	1 1/2	9	425	B30	30	354391	354392	113	C3x3	353045	26.0	6 7/8	49/64	2 7/8	C4	354121	31			
	2 27/16	9, 12, 14							C4x1 1/2	354116	19.0	6	33/64	2 1/8						
	3 37/16	12 thru 24	415	C4x2					354117	20.8	6	41/64	2 1/8							
HSCXT5	2 27/16	9, 12, 14	525	B30	30	355191	355192	165	C4x2 7/16	354118	24.3	6 11/16	41/64	2 3/4	C5	355072	43			
	3 37/16	12 thru 20							C4x3	354119	29.2	6 7/8	49/64	2 7/8						
	3 37/16	18 thru 24	515	B40					55	C4x3 7/16	354120	29.3	9 1/8	57/64				3 7/8		
HSCXT6	2 27/16	12, 14	625	B40	55	356291	356292	225	C5x2	355076	29.4	6	41/64	2 1/8	C6	356055	56			
	3 37/16	12 thru 20							C5x2 7/16	355077	33.0	6 11/16	41/64	2 3/4						
	3 37/16	18 thru 24	615	B50					106	C5x3	355078	37.9	6 7/8	49/64				2 7/8		
HSCXT7	2 27/16	12, 14	725	B40	55	356296	356297	390	C6x2 7/16	356042	47.7	6 11/16	41/64	2 3/4	C7	356187	72			
	3 37/16	12 thru 20							C6x3	356043	52.7	6 7/8	41/64	2 7/8						
	3 37/16	18 thru 24	715	B50					106	C6x3 7/16	356044	63.0	9 1/8	57/64				3 7/8		
Basic Drive No.	Gear Ratio		Max. RPM of Shaft					Used With Mtr. No.	A	G	H	K	L	U	V	W	X	Y	Z	
	Series	Input	Driven	Series	Series	Series														
							15													25
HSCXT1	15.35	25.64	2149	2179	140	85	A20 A10	15 11/32	4 15/32	37/32	77/16	♥	7 1/8	3/4	33/16	♥	9 11/32	129/32		
HSCXT2	14.97	24.92	2096	2118	140	85	A20	15 15/16	4 11/16	3 9/16	77/16	♦	8 3/8	43/32	349/64	♦	10 7/64	29/64		
HSCXT3	15.26	25.34	2136	2155	140	85	B30 A20	17 13/16	5 3/4	3 11/16	77/16	11 1/8	9 1/4	427/32	41 1/64	1323/32	1127/64	221/64		
HSCXT4	15.30	24.64	2142	2094	140	85	B30	18 7/16	6 3/16	4	7 3/8	11 1/8	10 3/8	5 1/2	425/32	15 1/8	1221/32	2 3/4		
HSCXT5	15.38	25.54	1919	2043	125	80	B40 B30	20 9 1/16	7 1/4	4 1/4	9 3/16	11 1/8	13 1/8	6 9/16	5 3/8	18 1/8	14 19/64	3 3/8		
HSCXT6	15.33	25.13	1895	1985	125	80	B40	21 13/16	8 3/32	5 1/2	9 9/16	11 1/8	15 1/8	7 9/16	6 47/64	21 1/8	1723/64	43/32		
HSCXT7	15.23	24.59	1767	1844	116	75	B50 B40	26 9/32	8 3/8	6 1/8	10 9 1/16	11 1/8	18 3/4	9 9/8	8 19/64	25 1/8	227 203/64	5 7/64		

Complete drive consists of reducer, CEMA drive shaft and key and adapter assembly. Drive is shipped unassembled.

▲ Includes adapter, necessary mounting bolts and seal retainer. Both lip type and braided type seals included for customer's choice of application. Order by number, description and part number. Example: C4 Adapter Assembly, 354121.

\* CEMA drive shaft and key furnished unless otherwise specified. Short series shafts available at same price. See page G6-11. Stainless steel CEMA shafts available at extra cost. Consult factory for price and delivery.

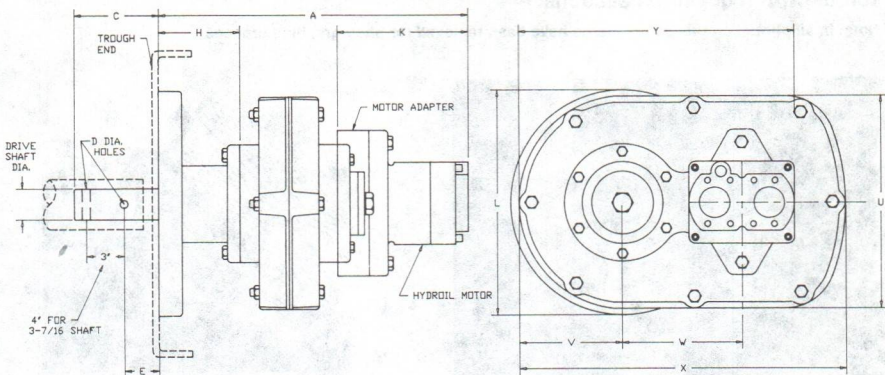
\* Reducer includes motor adapter. Order reducer by using basic number shown in left hand column and part number. Example: HSCXT415 Screw Conveyor Drive Reducer, 354391.

♥ L = 7", X = 9 1/16" when using a C1A adapter; L = 11 3/8", X = 11 7/8" when using a C1B adapter.

♦ L = 7", X = 11 1/16" when using a C2A adapter; L = 11 3/8", X = 13" when using a C2B adapter.

♣ Non-Stock.

# Single Reduction Hydroil Screw Conveyor Drives



## HSCXT105 thru HSCXT505

### Single Reduction Hydroil Screw Conveyor Drives

				Parts When Ordering Separately													
Basic Drive No.	Drive Shaft Diam.	To Fit Screw Diam.	Hydroil Motor	Reducer*		CEMA Drive Shaft*						Adapter Assy.▲					
				Size	Wt.	Part No.	Wt.	Size	Part No.	Wt.	C	D	E	Size	Part No.	Wt.	
HSCXT105	1½	6, 9	B30	30	351190	41	C1x1½	351094	7.2	6	33/64	2½	C1A	351086	17		
	2	9, 12				41	C1x2	351095	9.1	6	41/64	2½	C1B	351087	22		
	2 7/16	12, 14				41	C1x2 7/16	351096	12.5	6 11/64	41/64	2¾					
	3	12 thru 20				41	C1x3	351097	14.4	6 7/8	49/64	2 7/8					
HSCXT205	1½	6, 9	B30	30	352190	53	C2x1½	352090	11.4	6	32/64	2½	C2A	352052	20		
	2	9, 12				53	C2x2	352091	13.8	6	41/64	2½	C2B	352053	25		
	2 7/16	12, 14				53	C2x2 7/16	352092	17.3	6 11/64	41/64	2¾					
	3	12 thru 20				53	C2x3	352093	22.1	6 7/8	49/64	2 7/8					
HSCXT305	1½	9	B40	55	353190	79	C3x1½	353042	13.5	6	33/64	2½	C3	353047	27		
	2	9, 12				79	C3x2	353043	16.0	6	41/64	2½					
	2 7/16	12, 14				79	C3x2 7/16	353044	19.5	6 11/64	41/64	2¾					
	3	12 thru 20				79	C3x3	353045	26.0	6 7/8	49/64	2 7/8					
HSCXT405	1½	9	B40	55	354390	101	C4x1½	354116	19.0	6	33/64	2½	C4	354121	31		
	2	9, 12				101	C4x2	354117	20.8	6	41/64	2½					
	2 7/16	12, 14				101	C4x2 7/16	354118	24.3	6 11/64	41/64	2¾					
	3	12 thru 20				101	C4x3	354119	29.2	6 7/8	49/64	2 7/8					
3 1/16	18 thru 24	101				C4x3 7/16	354120	29.3	9 1/8	57/64	3 7/8						
HSCXT505	2	9, 12	B50	106	355190	160	C5x2	355076	29.4	6	41/64	2½	C5	355072	43		
	2 7/16	12, 14				160	C5x2 7/16	355077	33.0	6 11/64	41/64	2¾					
	3	12 thru 20				160	C5x3	355078	37.9	6 7/8	49/64	2 7/8					
	3 1/16	18 thru 24				160	C5x3 7/16	355079	48.3	9 1/8	57/64	3 7/8					
Basic Drive No.	Gear Ratio	Max. RPM of Shaft		Used With Mtr. No.	A	H	K	L	U	V	W	X	Y				
		Input	Driven														
HSCXT105	5.62	2246	400	B30	16 9/32	3 7/32	8 3/8	♥	7 7/8	3 3/4	3 17/64	♥	9 25/64				
HSCXT205	5.62	2246	400	B30	16 1/2	3 9/16	8 1/2	◆	8 3/8	4 3/32	3 5/64	◆	10 21/64				
HSCXT305	5.31	2124	400	B40	20	3 11/16	10 9/16	1 3/8	9 1/4	4 27/32	4 9/32	1 32/32	12 1/16				
HSCXT305	5.27	2108	400	B40	21	4	10 9/8	1 13/8	10 3/8	5 1/2	4 7/8	1 15 1/16	16 1/2				
HSCXT505	5.69	2275	400	B50	22 3/32	4 1/4	11 23/32	1 13/8	13 3/8	6 9/16	5 9/64	1 18 1/16	16 5/64				

Complete drive consists of reducer, CEMA drive shaft and key and adapter assembly. Drive is shipped unassembled.

- ▲ Includes adapter, necessary mounting bolts and seal retainer. Both lip type and braided type seals included for customer's choice of application. Order by number, description and part number. Example: C4 Adapter Assembly, 354121.
- \* CEMA drive shaft and key furnished unless otherwise specified. Short series shafts available at same price. See page G6-11. Stainless steel CEMA shafts available at extra cost. Consult

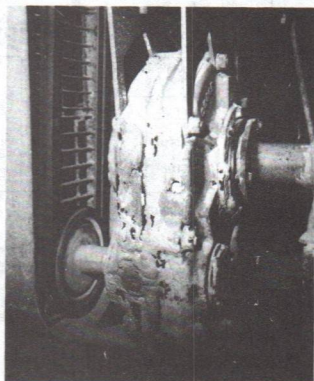
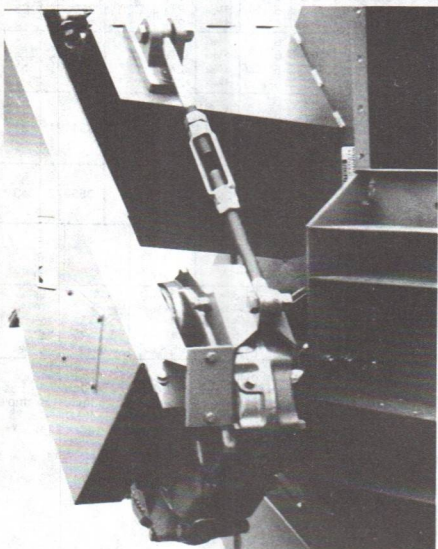
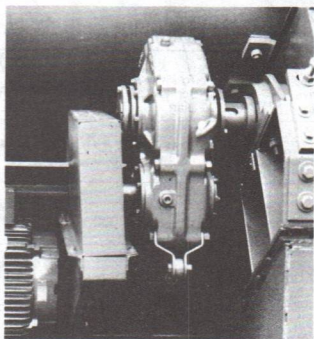
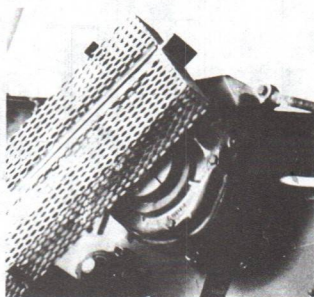
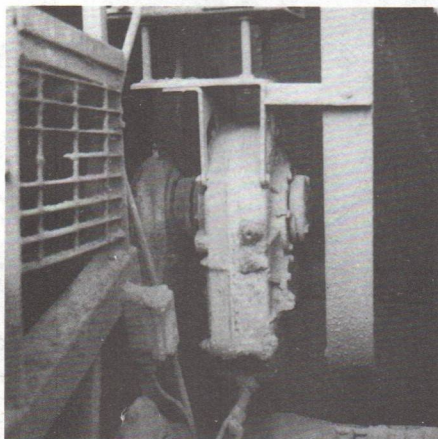
factory for price and delivery.

- \* Reducer includes motor adapter. Order reducer by using basic number shown in left hand column and part number. Example: HSCXT405 Screw Conveyor Drive Reducer 354390.
- ♥ L = 7", X = 9 1/16" when using a C1A adapter; L = 11 3/8", X = 1 17/8" when using a C1B adapter.
- ♦ L = 7", X = 11 13/32" when using a C2A adapter; L = 11 3/8", X = 13" when using a C2B adapter.
- ▲ Non-Stock.



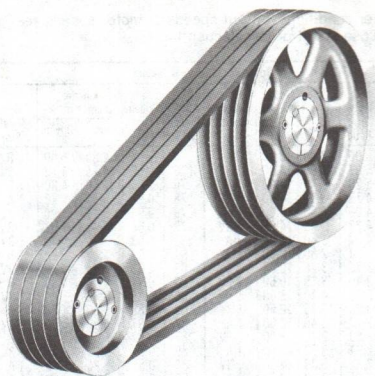
The DODGE® Torque-Arm Reducer has earned itself the reputation as the leading shaft-mounted speed reducer. Torque-Arm reducers can be and are used everywhere throughout industry on equipment and machinery as indicated in a number of typical Torque-Arm reducer installations:

Note: In all photos on this page, guards have been removed for photographic purposes.



# DODGE V-BELT DRIVES

## for TORQUE-ARM Reducers and Screw Conveyor Drives



These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

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## V-belt Drives for TXT115 & SCXT115 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum drive sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven						
19	6.00	3.00	18.00	1-A	73	1.56	3.20	5.00	2-A	13	6.00	3.00	18.00	1-A	73	1.04	4.80	5.00	1-B
20	5.63	3.20	18.00	1-A	74	1.55	4.00	6.20	1-A	14	5.37	2.65	14.00	1-3V	76	1.00	4.75	4.75	1-3V
22	5.07	2.80	14.00	1-3V	75	1.52	3.15	4.75	2-3V	14	5.29	3.40	18.00	1-A	76	1.00	4.60	4.60	1-B
22	5.29	3.40	18.00	1-A	76	1.51	3.00	4.50	2-3V	16	4.73	3.00	14.00	1-3V	78	0.96	5.40	5.20	1-A
24	4.75	3.00	14.00	1-3V	76	1.50	4.00	6.00	1-A	16	4.69	3.20	15.00	1-A	79	0.95	3.15	3.00	3-3V
24	4.63	3.20	15.00	1-A	77	1.48	4.20	6.20	1-A	18	4.23	3.35	14.00	1-3V	79	0.96	4.80	4.60	1-B
25	4.63	3.20	15.00	1-A	78	1.46	3.65	5.00	1-3V	20	3.84	2.80	10.60	1-A	81	0.93	6.00	5.60	1-3V
27	4.23	3.35	14.00	1-3V	79	1.45	4.50	6.50	1-3V	22	3.40	3.15	10.60	1-3V	81	0.93	5.60	5.20	1-B
27	4.17	3.60	15.00	1-A	79	1.45	4.00	5.80	1-A	22	3.40	3.15	10.60	1-3V	83	0.91	4.50	4.12	2-3V
29	3.88	3.65	14.00	1-3V	80	1.43	4.20	6.00	1-A	22	3.40	3.15	10.60	1-3V	83	0.91	4.50	4.12	2-3V
29	3.95	3.80	15.00	1-A	82	1.38	2.65	3.65	2-3V	22	3.41	4.40	15.00	1-A	85	0.89	5.60	5.00	1-3V
30	3.75	3.20	12.00	1-A	82	1.39	4.60	6.40	1-B	24	3.20	3.35	10.60	1-3V	85	0.88	5.20	4.60	1-B
31	3.68	5.00	18.40	1-B	83	1.38	4.20	5.80	1-A	24	3.12	3.40	10.60	1-A	87	0.87	6.90	6.00	1-3V
32	3.58	3.00	10.60	1-3V	84	1.36	4.12	5.60	1-3V	26	2.89	2.80	8.00	2-3V	87	0.87	6.00	5.20	1-B
32	3.53	3.00	10.60	1-A	85	1.34	4.50	6.00	1-3V	26	2.94	3.60	10.60	1-A	89	0.85	5.30	4.50	1-3V
34	3.31	3.20	10.60	1-A	86	1.33	4.20	5.60	1-A	27	2.82	5.00	14.00	1-3V	89	0.85	5.20	4.40	1-A
34	3.26	4.60	15.00	1-A	86	1.33	4.40	5.80	1-A	27	2.81	3.20	9.00	1-A	90	0.84	6.20	5.20	1-B
36	3.20	3.35	10.60	1-3V	87	1.31	3.65	4.75	1-3V	28	2.69	3.00	10.60	2-3V	92	0.82	5.00	4.60	1-B
36	3.16	3.80	12.00	1-A	88	1.29	4.12	5.30	1-3V	28	2.73	4.40	12.00	1-A	92	0.82	5.00	4.60	1-B
38	2.97	4.75	14.00	1-3V	88	1.30	4.00	5.20	1-A	30	2.48	2.65	5.00	2-3V	95	0.79	6.80	5.40	1-B
38	3.00	4.00	12.00	1-A	91	1.25	4.50	5.60	1-3V	30	2.50	3.60	9.00	1-A	96	0.79	6.00	4.75	2-3V
40	2.82	5.00	14.00	1-3V	91	1.25	4.00	5.00	1-A	32	2.35	2.80	9.00	2-3V	99	0.77	6.90	6.00	1-3V
40	2.86	4.20	12.00	1-A	92	1.24	3.65	4.50	1-3V	32	2.37	3.80	9.00	1-A	99	0.77	6.90	5.30	1-3V
42	2.69	3.00	8.00	1-3V	92	1.24	4.20	5.20	1-A	33	2.30	4.60	10.60	1-A	99	0.76	6.80	5.20	1-B
42	2.73	4.40	12.00	1-3V	94	1.22	4.12	5.00	2-3V	34	2.21	3.65	8.00	1-3V	101	0.75	8.00	6.00	1-3V
42	2.73	4.40	12.00	2-3V	94	1.21	4.80	5.80	1-B	35	2.13	2.65	5.60	2-3V	101	0.75	4.00	3.00	3-A
44	2.56	4.15	8.00	1-3V	97	1.18	4.50	5.20	1-B	38	2.01	3.80	10.60	1-A	103	0.73	5.60	4.12	2-3V
44	2.56	3.20	8.20	1-A	97	1.18	5.60	6.60	1-B	38	2.01	3.00	10.60	3-3V	103	0.74	5.00	4.00	2-3V
45	2.51	5.60	14.00	1-3V	98	1.17	4.80	5.60	1-B	38	2.00	3.00	6.00	2-A	105	0.72	6.90	5.00	1-3V
45	2.52	4.20	10.60	1-A	99	1.15	6.00	6.90	1-3V	40	1.90	3.65	6.90	1-3V	105	0.72	5.00	3.60	2-A
46	2.48	2.65	6.50	2-3V	101	1.13	5.30	6.00	1-3V	40	1.87	4.60	8.60	1-B	106	0.71	9.00	6.40	1-A
46	2.50	3.60	9.00	1-A	101	1.13	4.80	5.40	1-B	42	1.79	3.65	6.50	1-3V	107	0.71	6.80	4.80	1-B
47	2.41	3.40	8.20	1-A	102	1.12	5.00	5.60	1-B	42	1.78	4.60	8.20	1-A	108	0.70	8.00	5.60	1-3V
48	2.37	4.50	10.60	1-3V	104	1.09	4.12	4.50	2-3V	44	1.71	2.65	4.50	2-3V	108	0.70	7.40	5.20	1-B
49	2.32	6.00	9.90	1-3V	110	1.10	6.00	6.60	1-3V	44	1.71	4.80	8.20	1-A	109	0.69	5.20	3.60	2-A
49	2.30	4.60	10.60	1-A	105	1.08	4.80	5.20	1-B	46	1.65	3.60	6.00	1-3V	110	0.69	5.30	3.65	2-3V
50	2.28	3.60	8.20	1-A	106	1.07	5.60	6.00	1-3V	46	1.63	8.00	12.00	1-A	110	0.69	5.00	4.00	1-3V
51	2.24	4.75	10.60	1-3V	107	1.06	5.00	5.30	1-3V	48	1.58	4.12	6.50	1-3V	111	0.68	5.60	3.80	2-A
51	2.25	4.00	9.00	1-A	107	1.07	5.80	6.20	1-B	48	1.58	3.80	6.00	1-3V	112	0.68	7.40	5.00	1-B
52	2.21	3.65	8.00	1-3V	110	1.04	5.00	5.20	1-B	49	1.56	3.60	5.60	1-A	113	0.67	5.00	3.35	2-3V
52	2.21	4.80	10.60	1-A	111	1.03	6.40	6.60	1-B	50	1.51	3.00	5.00	2-3V	113	0.67	9.00	6.00	1-A
53	2.14	4.20	9.00	1-A	111	0.97	6.80	6.60	1-B	51	1.48	2.80	4.12	2-3V	116	0.65	5.60	3.65	2-3V
55	2.08	3.15	6.50	2-3V	118	0.96	5.40	5.20	1-B	51	1.47	3.80	5.60	1-A	116	0.65	7.40	4.80	1-B
55	2.05	3.60	7.20	2-A	120	0.95	5.60	5.30	1-3V	53	1.44	3.15	4.50	2-3V	117	0.64	9.00	5.80	1-A
56	2.05	4.00	8.20	1-A	120	0.95	5.60	5.30	2-A	53	1.43	4.60	6.60	1-B	119	0.63	6.00	3.80	2-A
57	2.02	3.00	6.00	2-3V	122	0.93	6.00	5.60	1-3V	54	1.40	3.60	4.00	1-3V	121	0.62	8.00	5.00	1-3V
58	1.95	4.12	8.00	1-A	122	0.93	5.80	5.40	1-B	56	1.35	3.35	4.50	2-3V	122	0.62	8.00	5.00	1-3V
58	1.95	4.20	8.20	1-A	124	0.92	3.65	3.35	2-3V	56	1.35	4.60	6.20	1-B	123	0.61	6.20	3.80	2-A
59	1.93	3.00	5.80	2-A	124	0.92	7.40	6.80	1-B	58	1.30	5.00	6.50	1-3V	125	0.61	6.00	3.65	2-3V
60	1.90	3.65	6.90	1-3V	125	0.91	6.60	6.00	1-B	58	1.30	4.60	6.00	1-B	125	0.60	8.60	5.20	1-B
61	1.88	3.00	5.60	2-3V	127	0.90	5.30	4.75	1-3V	60	1.27	4.75	6.00	1-3V	126	0.60	9.00	5.40	1-A
61	1.86	4.40	8.20	1-A	129	0.88	5.60	5.20	1-B	60	1.26	4.60	5.80	1-B	128	0.59	8.00	4.75	1-3V
62	1.83	5.80	10.60	1-A	129	0.88	6.20	5.30	1-3V	61	1.25	4.50	5.60	1-3V	128	0.59	18.00	10.60	1-A
63	1.81	2.65	4.75	2-3V	129	0.88	5.20	4.60	1-B	61	1.24	4.00	6.20	1-B	129	0.59	5.80	3.40	2-A
64	1.79	3.65	6.50	1-3V	131	0.86	6.50	6.00	1-3V	63	1.20	5.00	6.00	1-3V	130	0.58	8.00	5.00	1-B
64	1.78	4.60	8.20	1-A	132	0.86	6.50	5.60	1-3V	63	1.21	4.80	5.80	1-B	132	0.57	9.40	5.40	1-B
67	1.71	2.65	4.50	2-3V	132	0.86	5.80	5.00	1-B	65	1.16	3.15	3.65	2-3V	133	0.57	14.00	8.00	1-3V
67	1.71	4.80	8.20	1-A	134	0.85	5.30	4.50	2-3V	65	1.17	4.80	5.60	1-B	133	0.57	6.00	3.40	2-A
68	1.67	4.20	7.00	1-A	134	0.85	5.40	4.60	1-B	67	1.12	5.00	5.60	1-3V	134	0.56	6.40	3.60	2-A
69	1.65	3.65	6.00	1-3V	135	0.84	6.40	5.40	1-B	67	1.13	4.60	5.20	1-B	135	0.56	8.00	4.50	1-3V
70	1.62	4.50	8.20	1-A	136	0.84	6.20	5.20	1-B	69	1.09	3.35	3.65	2-3V	136	0.55	6.00	3.35	2-3V
70	1.64	5.00	8.20	1-A	137	0.83	6.00	5.00	1-3V	70	1.09	5.60	6.00	1-3V	137	0.55	5.40	3.00	3-A
71	1.60	4.00	6.40	1-A	137	0.83	6.00	5.00	1-B	70	1.09	5.60	6.00	1-3V	137	0.55	5.40	3.00	3-A
72	1.58	4.12	6.50	1-3V	139	0.82	5.00	4.12	2-3V	72	1.05	4.75	5.00	1-3V	138	0.55	6.20	4.00	1-B
73	1.57	2.65	4.12	2-3V	139	0.82	5.60	4.60	1-B	72	1.04	4.60	4.80	1-B	139	0.55	11.00	6.00	1-A

# V-belt Drives for TXT125 & SCXT125 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driver sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
16	4.23	3.35	14.00	1-3V	49	1.40	3.00	4.20	1-A	11	4.06	2.65	10.60	1-3V	49	0.92	4.80	4.40	1-A
16	4.17	3.60	15.00	1-A	50	1.38	3.65	5.00	1-3V	11	4.00	3.00	12.00	1-A	50	0.90	5.00	4.50	1-3V
17	4.06	2.65	10.60	1-3V	50	1.37	3.20	4.40	1-A	12	3.84	2.80	10.60	1-3V	50	0.90	5.30	4.50	1-A
17	4.00	3.00	12.00	1-A	51	1.35	3.35	4.50	1-3V	12	3.75	3.20	12.00	1-A	52	0.87	6.90	6.00	1-3V
18	3.84	2.80	10.60	1-3V	51	1.33	3.60	4.80	1-A	14	3.20	3.35	10.60	1-3V	52	0.86	5.80	5.00	1-B
18	3.75	3.20	12.00	1-A	52	1.31	3.65	4.75	1-3V	14	3.31	3.20	10.60	1-A	53	0.85	5.20	4.40	1-A
19	3.58	3.00	10.60	1-3V	52	1.32	4.40	5.80	1-A	15	3.00	2.65	8.00	1-3V	54	0.83	6.00	5.00	1-3V
19	3.53	3.00	10.60	1-A	53	1.29	4.12	5.30	1-3V	16	2.89	2.80	8.00	1-3V	54	0.83	6.00	5.00	1-B
20	3.40	3.15	10.60	1-3V	53	1.30	4.00	5.20	1-A	16	2.81	3.20	9.00	1-A	55	0.82	5.00	4.12	1-3V
20	3.33	3.60	12.00	1-A	54	1.27	4.75	6.00	1-3V	17	2.63	2.65	6.90	1-3V	55	0.82	5.60	4.60	1-B
21	3.20	3.35	10.60	1-3V	54	1.27	4.40	5.60	1-A	17	2.73	3.00	8.20	1-A	56	0.80	4.80	4.40	1-A
21	3.31	3.20	10.60	1-A	55	1.24	3.65	4.50	1-3V	18	2.48	2.65	6.50	1-3V	56	0.81	5.40	4.40	1-A
22	3.06	2.65	8.00	1-3V	55	1.25	4.00	5.00	1-A	18	2.56	3.20	8.20	1-A	57	0.79	6.80	6.00	1-3V
22	3.12	3.40	10.60	1-A	56	1.22	4.12	5.00	1-3V	19	2.35	2.80	6.50	1-3V	57	0.79	5.30	4.12	1-B
23	2.93	3.65	10.60	1-3V	56	1.23	4.40	5.40	1-A	20	2.33	3.00	7.00	1-A	58	0.78	6.00	4.20	1-A
23	3.00	3.00	9.00	1-A	57	1.20	5.00	6.00	1-3V	20	2.29	2.65	6.00	1-3V	58	0.78	6.00	4.20	1-B
24	2.89	2.80	8.00	1-3V	57	1.20	4.00	4.80	1-A	21	2.28	3.60	8.20	1-A	59	0.77	6.50	5.00	1-3V
24	2.81	3.20	9.00	1-A	58	1.18	4.50	5.20	1-3V	21	2.13	2.65	5.60	1-3V	59	0.77	6.00	4.60	1-B
25	2.65	3.00	8.00	1-3V	58	1.18	4.40	5.20	1-A	22	2.02	2.65	5.30	1-3V	60	0.75	5.80	4.20	1-A
25	2.73	3.00	8.20	1-A	59	1.15	4.12	4.75	1-3V	22	2.07	3.00	6.20	1-A	61	0.74	4.50	3.35	2-3V
26	2.63	2.65	6.90	1-3V	59	1.15	4.00	4.60	1-A	23	1.95	3.35	6.50	1-3V	61	0.74	5.60	4.12	1-3V
26	2.65	3.40	9.00	1-A	60	1.13	5.30	6.00	1-3V	23	1.93	3.00	5.80	1-A	62	0.73	5.80	4.20	1-A
27	2.49	2.80	9.00	1-3V	60	1.14	4.20	4.80	1-A	25	1.79	3.15	5.60	1-3V	62	0.72	4.75	3.35	2-3V
27	2.56	3.20	8.20	1-A	61	1.11	4.50	5.00	1-3V	25	1.81	3.20	5.80	1-A	64	0.70	6.20	4.40	1-A
28	2.48	2.65	6.50	1-3V	61	1.13	4.80	5.40	1-B	26	1.71	2.65	4.50	1-3V	64	0.71	5.00	3.35	2-3V
28	2.41	3.40	8.20	1-A	62	1.09	4.12	4.50	1-3V	26	1.75	3.20	5.80	1-A	65	0.70	4.50	3.15	2-3V
29	2.35	2.80	6.50	1-3V	62	1.10	4.00	4.40	1-A	27	1.69	3.15	5.30	1-3V	65	0.70	6.00	4.20	1-A
29	2.33	3.00	7.00	1-A	63	1.09	3.35	3.65	2-3V	27	1.69	3.20	5.40	1-A	66	0.68	5.80	4.12	1-3V
30	2.29	2.65	6.00	1-3V	63	1.09	4.40	4.80	1-A	28	1.60	3.15	5.00	1-3V	66	0.69	5.80	4.00	1-3V
30	2.28	3.60	8.20	1-A	64	1.06	5.00	5.30	1-3V	28	1.63	3.20	5.20	1-A	68	0.66	6.00	4.00	1-A
31	2.19	3.00	6.50	1-3V	64	1.07	5.40	5.80	1-B	29	1.54	3.65	5.60	1-3V	68	0.67	4.75	3.15	2-3V
31	2.19	3.20	7.00	1-A	65	1.06	4.50	4.75	1-3V	29	1.56	3.20	5.00	1-A	69	0.66	5.80	3.80	1-A
32	2.13	2.65	5.60	1-3V	65	1.05	4.00	4.20	1-A	30	1.52	3.15	4.75	1-3V	69	0.66	6.80	3.65	1-3V
32	2.13	3.00	6.40	1-A	68	1.00	4.12	4.12	1-3V	30	1.50	3.20	4.80	1-A	70	0.65	6.20	4.00	1-A
33	2.08	3.15	5.60	1-3V	68	1.00	4.00	4.00	1-A	31	1.46	3.65	5.30	1-3V	72	0.63	6.50	4.12	1-3V
33	2.06	3.40	7.00	1-A	72	0.95	4.75	4.50	1-3V	31	1.44	2.00	6.00	1-A	72	0.63	6.40	4.00	1-A
34	2.02	3.00	6.00	1-3V	72	0.95	4.20	4.00	1-A	32	1.41	3.40	4.80	1-A	73	0.62	8.00	5.00	1-3V
34	2.00	3.20	6.40	1-A	73	0.93	5.80	5.40	1-3V	32	1.44	3.15	4.50	1-3V	73	0.62	7.40	4.60	1-B
35	1.95	3.35	6.50	1-3V	73	0.93	5.80	5.40	1-3V	33	1.39	3.60	5.00	1-A	74	0.61	10.60	6.50	1-3V
35	1.94	3.20	6.20	1-A	74	0.92	3.65	3.35	2-3V	34	1.34	4.50	6.00	1-3V	74	0.61	6.00	3.65	1-A
36	1.88	3.00	5.60	1-3V	74	0.92	4.80	4.40	1-A	34	1.33	3.60	4.80	1-A	75	0.61	7.00	4.20	1-3V
36	1.88	3.20	6.00	1-A	75	0.91	4.50	4.12	1-3V	36	1.25	4.50	6.00	1-3V	75	0.60	5.90	4.12	1-3V
38	1.78	3.00	5.30	1-3V	75	0.90	4.20	3.80	1-A	36	1.26	3.80	4.80	1-A	76	0.59	6.40	3.80	1-A
38	1.81	3.20	5.80	1-A	76	0.89	5.00	4.50	1-3V	37	1.22	3.60	4.40	1-A	77	0.59	8.00	4.75	1-3V
39	1.75	8.00	14.00	1-3V	77	0.88	4.12	3.65	1-3V	37	1.24	3.65	4.50	1-3V	77	0.59	8.00	4.75	1-3V
39	1.75	3.20	5.60	1-A	77	0.88	5.20	4.60	1-B	38	1.18	4.50	5.30	1-3V	79	0.57	8.20	4.80	1-A
40	1.69	3.15	5.30	1-3V	79	0.87	4.75	4.12	1-3V	38	1.20	4.00	4.80	1-A	79	0.57	14.00	8.00	1-3V
40	1.68	3.00	5.00	1-3V	79	0.86	4.40	3.80	1-A	39	1.15	4.12	4.75	1-3V	79	0.57	10.60	6.00	1-3V
41	1.65	3.40	5.60	1-A	81	0.85	5.50	4.80	1-3V	39	1.16	3.80	4.40	1-A	80	0.56	10.60	6.00	1-3V
42	1.63	2.80	4.50	2-3V	81	0.84	5.00	4.20	1-A	40	1.13	3.65	4.12	1-3V	80	0.56	8.20	3.65	1-A
42	1.63	3.20	5.20	1-A	82	0.83	6.00	5.00	1-3V	40	1.14	4.20	4.80	1-A	81	0.56	8.20	4.60	1-3V
43	1.59	3.00	4.75	1-3V	82	0.83	4.80	4.00	1-A	41	1.09	4.12	4.50	1-3V	81	0.56	6.00	3.35	1-3V
43	1.59	3.40	5.40	1-A	83	0.82	5.00	4.12	1-3V	41	1.11	3.80	4.20	1-A	82	0.55	9.40	5.20	1-B
44	1.54	3.65	5.60	1-3V	83	0.82	4.40	3.60	1-A	42	1.07	5.60	6.00	1-3V	85	0.53	5.60	3.00	2-3V
44	1.56	3.20	5.00	1-A	84	0.81	4.50	3.65	1-3V	42	1.09	4.60	5.00	1-B	85	0.53	8.60	4.60	1-3V
45	1.51	3.00	4.50	1-3V	84	0.81	5.40	4.40	1-A	43	1.06	4.50	4.75	1-3V	86	0.53	6.90	3.65	1-3V
45	1.53	3.35	5.00	1-3V	85	0.80	5.60	4.50	1-3V	43	1.05	3.80	4.00	1-A	86	0.53	6.90	3.65	1-3V
46	1.50	3.20	4.80	1-A	85	0.80	5.00	4.00	1-A	45	1.00	4.12	4.12	1-3V	86	0.53	6.90	3.65	1-3V
47	1.46	3.65	5.30	1-3V	85	0.80	5.00	4.00	1-A	45	1.00	3.80	3.80	1-A	86	0.53	6.90	3.65	1-3V
47	1.47	3.00	4.40	1-A	85	0.80	5.00	4.00	1-A	48	0.95	4.75	4.50	1-3V	86	0.53	6.90	3.65	1-3V
48	1.44	3.15	4.50	1-3V	85	0.80	5.00	4.00	1-A	48	0.95	4.75	4.50	1-3V	86	0.53	6.90	3.65	1-3V
48	1.41	3.40	4.80	1-A	85	0.80	5.00	4.00	1-A	48	0.95	4.75	4.50	1-3V	86	0.53	6.90	3.65	1-3V
49	1.38	3.00	4.12	1-3V	85	0.80	5.00	4.00	1-A	49	0.91	4.80	4.12	1-3V	86	0.53	6.90	3.65	1-3V

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V); pitch diameters for A & B sheaves. All ratios based on P.D.  
Sheaves in shaded area represent speed up drives.



# V-belt Drives for TXT215 & SCXT215 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1150 RPM Motors									
Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
17	7.29	2.65	19.00	1-3V	76	1.63	3.80	6.20	3-A	11	7.29	2.65	19.00	1-3V	67	1.23	6.50	8.00	1-3V
19	6.42	3.00	19.00	1-3V	77	1.61	5.00	8.00	2-3V	12	6.89	2.80	19.00	1-3V	67	1.23	6.00	7.40	1-B
21	6.00	3.00	18.00	2-A	77	1.62	6.80	11.00	1-B	13	6.42	3.00	19.00	1-3V	69	1.19	6.20	7.40	1-B
22	5.74	3.35	19.00	1-3V	79	1.57	6.00	9.40	1-B	14	5.74	3.35	19.00	1-3V	71	1.15	4.12	4.75	2-3V
22	5.63	3.20	18.00	1-A	81	1.54	4.50	6.90	2-3V	14	6.00	3.00	18.00	2-A	71	1.16	6.40	7.40	1-B
23	5.37	2.65	14.00	2-3V	81	1.53	3.80	5.80	3-A	16	5.07	2.80	14.00	2-3V	72	1.14	5.60	6.40	1-B
23	5.29	3.40	18.00	1-A	83	1.50	3.35	5.00	3-3V	16	5.29	3.40	18.00	1-A	74	1.11	4.50	5.00	2-3V
25	5.00	3.60	18.00	1-A	83	1.50	3.60	5.40	3-A	17	4.73	3.00	14.00	1-3V	74	1.11	5.60	6.20	1-B
26	4.73	3.00	14.00	1-3V	84	1.47	3.40	5.00	3-A	17	4.73	3.00	14.00	1-3V	77	1.07	5.60	6.00	2-3V
26	4.69	3.20	15.00	1-A	85	1.46	4.12	6.00	2-3V	18	4.66	4.12	19.00	1-3V	77	1.07	5.60	5.80	2-B
29	4.26	4.50	19.00	1-3V	85	1.46	6.40	9.40	1-B	18	4.50	4.12	18.00	1-4	79	1.04	5.00	5.20	2-A
29	4.29	4.20	18.00	1-A	87	1.42	3.35	4.75	3-3V	20	4.06	2.65	0.60	2-3V	80	1.03	4.00	4.00	2-B
30	4.09	4.40	18.00	1-A	87	1.43	6.00	8.60	1-B	20	4.09	4.40	18.00	1-A	85	0.96	5.40	5.20	2-B
31	4.06	2.65	10.60	2-3V	88	1.41	3.40	4.80	3-A	21	3.88	3.65	14.00	1-3V	86	0.96	5.00	4.80	2-B
31	4.00	3.00	12.00	2-A	89	1.39	4.60	6.40	2-A	21	4.00	3.00	12.00	2-A	87	0.94	5.30	5.00	2-3V
33	3.75	3.20	12.00	2-A	90	1.37	4.75	6.50	2-3V	22	3.75	4.00	15.00	1-A	87	0.94	6.80	6.40	2-B
34	3.61	5.30	19.00	1-3V	90	1.39	6.20	8.60	1-B	24	3.43	4.12	14.00	1-3V	89	0.92	6.50	6.00	2-3V
34	3.60	5.00	18.00	1-A	92	1.35	3.35	4.50	3-3V	24	3.41	4.40	15.00	1-A	89	0.92	5.20	4.80	2-B
35	3.58	3.00	10.60	2-3V	92	1.34	6.40	8.60	1-B	25	3.31	3.20	10.60	2-A	91	0.90	6.00	5.40	2-A
35	3.53	3.00	10.60	2-A	93	1.34	4.50	6.00	2-3V	26	3.13	4.50	14.00	1-3V	93	0.88	6.00	5.30	2-3V
37	3.31	3.20	10.60	2-A	93	1.32	3.60	4.80	3-A	26	3.16	3.80	12.00	1-A	93	0.88	5.20	4.60	2-B
38	3.26	4.60	15.00	1-A	94	1.33	8.00	10.60	1-3V	27	2.97	4.75	14.00	1-3V	96	0.86	5.60	5.60	2-3V
39	3.20	3.35	10.60	2-3V	94	1.32	3.80	5.00	3-A	28	2.97	4.75	14.00	1-3V	96	0.86	5.60	5.60	2-3V
39	3.21	4.80	15.00	1-B	96	1.29	4.12	5.30	2-3V	28	2.94	3.60	10.60	2-A	98	0.84	6.20	5.20	2-A
40	3.13	4.50	14.00	1-3V	96	1.29	4.80	6.20	2-A	30	2.77	6.90	19.00	1-3V	99	0.83	6.00	5.00	2-3V
40	3.12	4.40	10.60	2-A	97	1.28	3.60	4.60	3-A	30	2.79	3.80	10.60	2-A	99	0.83	5.80	4.80	2-B
41	3.06	2.65	8.00	2-3V	99	1.25	4.80	6.00	2-A	32	2.56	3.15	8.00	2-A	101	0.81	6.50	5.30	2-3V
41	3.00	4.00	12.00	1-A	101	1.23	6.50	8.00	1-3V	32	2.56	3.20	8.20	2-A	101	0.81	6.40	5.20	2-A
43	2.89	2.80	8.00	2-3V	101	1.23	6.00	7.40	1-B	33	2.51	5.60	14.00	1-3V	103	0.80	5.60	4.50	2-3V
43	2.86	4.20	12.00	1-A	102	1.22	4.12	5.00	2-3V	33	2.48	5.00	12.40	1-B	103	0.80	6.00	4.80	2-B
45	2.77	6.90	19.00	1-3V	102	1.22	4.60	5.00	2-3V	35	2.32	3.00	6.90	2-3V	104	0.79	6.00	4.75	3-3V
45	2.73	3.00	8.20	2-A	103	1.20	5.00	6.00	2-3V	35	2.32	3.00	6.90	2-3V	104	0.79	6.00	4.75	3-3V
46	2.69	3.00	8.00	2-3V	103	1.21	3.80	4.60	3-A	36	2.29	4.80	11.00	1-B	105	0.78	6.60	5.20	2-B
46	2.73	4.40	12.00	1-A	104	1.19	5.20	6.20	2-B	38	2.19	3.00	6.50	3-3V	107	0.77	6.40	5.00	2-3V
48	2.56	3.15	8.00	3-3V	105	1.18	4.50	5.30	3-3V	38	2.19	3.20	7.00	2-A	107	0.77	6.00	4.60	3-A
48	2.58	4.80	12.40	1-B	105	1.19	5.40	6.40	2-B	40	2.08	3.15	6.50	2-3V	108	0.76	6.80	5.20	2-B
50	2.48	5.00	12.40	1-B	106	1.17	4.80	5.60	2-B	40	2.04	4.60	9.40	1-B	110	0.75	6.00	4.50	3-3V
51	2.42	6.20	15.00	1-A	107	1.16	5.60	6.50	2-3V	42	1.95	3.35	6.50	2-3V	110	0.75	6.40	4.80	3-A
52	2.41	3.35	8.00	2-3V	107	1.16	7.40	8.60	1-B	42	1.96	4.80	9.40	1-B	111	0.74	6.20	4.60	3-A
52	2.38	3.20	12.40	1-B	109	1.14	4.20	4.80	3-A	44	1.88	3.00	5.60	3-3V	113	0.73	5.00	3.65	4-3V
53	2.32	3.00	6.90	3-3V	111	1.12	5.00	5.60	2-3V	44	1.87	4.60	8.60	1-B	113	0.73	7.40	5.40	2-B
53	2.33	3.00	7.00	3-A	111	1.12	5.00	5.60	2-B	45	1.81	3.20	5.80	2-A	115	0.71	7.00	5.00	3-A
54	2.29	4.80	11.00	1-B	113	1.10	4.20	4.60	3-A	46	1.79	4.50	5.00	1-3V	116	0.71	6.20	4.40	3-A
56	2.21	3.65	8.00	2-3V	115	1.08	6.00	6.50	2-3V	46	1.79	4.80	8.60	1-B	118	0.70	8.00	5.60	2-3V
56	2.20	5.00	11.00	1-B	115	1.08	4.80	5.20	2-B	48	1.72	6.40	11.00	1-B	118	0.70	6.60	4.60	3-B
58	2.13	5.00	10.60	1-3V	117	1.06	5.00	5.30	2-3V	49	1.68	4.12	6.90	2-3V	120	0.68	6.00	4.12	3-3V
58	2.16	3.80	8.20	2-A	117	1.06	6.20	6.60	2-B	49	1.68	5.60	9.40	1-B	120	0.69	6.40	4.40	3-A
59	2.12	5.20	11.00	1-B	119	1.04	5.00	5.20	2-B	51	1.61	5.00	8.00	2-3V	121	0.68	6.20	4.20	3-A
61	2.04	6.90	14.00	1-3V	121	1.03	6.60	6.80	2-B	51	1.62	5.80	9.40	1-B	122	0.67	11.00	7.40	1-B
61	2.04	5.40	11.00	1-B	124	1.00	4.12	4.12	3-3V	53	1.54	4.50	6.90	2-3V	125	0.66	8.00	5.30	2-3V
63	1.96	4.80	9.40	1-B	124	1.00	8.60	8.60	1-B	53	1.57	6.00	9.40	1-B	125	0.66	6.40	4.20	3-B
65	1.90	3.65	6.90	2-3V	128	0.97	6.00	5.80	2-A	54	1.52	3.15	4.75	3-3V	126	0.65	8.60	5.60	2-B
65	1.90	5.80	11.00	1-B	129	0.96	5.00	4.80	2-B	54	1.54	5.60	8.60	1-B	127	0.65	5.00	3.65	4-3V
66	1.88	3.00	5.60	3-3V	131	0.95	5.60	5.30	2-3V	56	1.46	4.12	6.00	2-3V	128	0.64	9.00	5.80	2-A
66	1.88	5.00	9.40	1-B	131	0.95	3.80	3.60	4-A	56	1.48	5.80	8.60	1-B	130	0.63	6.50	4.12	3-3V
67	1.87	3.00	5.60	3-A	133	0.93	6.00	5.60	2-3V	57	1.45	4.50	6.50	2-3V	130	0.63	6.00	3.80	4-A
68	1.83	5.80	10.60	1-A	133	0.93	5.80	5.40	2-B	57	1.43	6.00	8.60	1-B	132	0.62	8.00	5.00	2-3V
68	1.80	3.35	6.00	2-3V	134	0.93	5.40	5.00	2-B	59	1.38	5.00	6.90	2-3V	132	0.62	7.40	4.60	2-B
69	1.79	4.80	8.60	1-B	135	0.92	6.50	6.00	2-3V	59	1.38	6.20	8.60	1-B	134	0.61	6.20	3.80	4-A
71	1.75	8.00	14.00	1-3V	135	0.92	5.20	4.80	2-B	62	1.34	4.50	6.00	2-3V	136	0.61	8.60	5.20	2-B
71	1.74	5.40	9.40	1-B	136	0.91	4.50	4.12	3-3V	62	1.32	5.60	7.40	1-B	136	0.60	8.60	3.35	4-3V
72	1.72	5.00	8.60	1-B	136	0.91	9.40	8.60	1-B	63	1.31	3.65	4.75	3-3V	138	0.59	5.60	3.35	4-3V
74	1.68	3.35	5.60	2-3V	137	0.91	4.40	4.00	3-A	63	1.30	6.60	8.60	1-B	138	0.60	12.40	7.40	1-B
74	1.68	5.60	9.40	1-B	139	0.90	5.30	4.75	2-3V	65	1.27	4.75	6.00	2-3V	139	0.59	8.00	4.75	2-3V
76	1.64	5.00	10.60	1-3V	139	0.89	5.60	5.00	2-B	65	1.28	5.80	7.40	1-B	139	0.59	6.40	3.80	4-A

Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V); pitch diameters for A &

# V-belt Drives for TXT225 & SCXT225 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum drive sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive RPM	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive RPM	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive RPM	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive RPM	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	7.29	2.65	19.00	1-3V	48	1.54	4.80	7.40	1-B	10	5.07	2.80	14.00	1-3V	46	1.08	4.80	5.20	1-B
12	6.42	3.00	19.00	1-3V	49	1.51	5.30	8.00	1-3V	10	5.00	3.00	15.00	1-A	48	1.03	5.80	6.00	1-B
12	6.00	3.00	18.00	1-A	49	1.54	5.00	8.60	1-B	11	4.50	3.15	14.00	1-3V	49	1.00	6.50	6.50	1-3V
14	5.37	2.65	14.00	1-3V	50	1.50	5.35	5.00	2-3V	11	4.69	3.20	15.00	1-A	49	1.00	5.80	5.80	1-B
14	5.29	3.40	18.00	1-A	50	1.48	5.00	7.40	1-B	12	4.06	2.65	10.60	1-3V	51	0.97	5.80	5.80	1-B
15	5.07	2.80	14.00	1-3V	51	1.46	3.65	5.30	2-3V	12	4.00	3.00	12.00	1-A	52	0.95	4.75	4.75	2-3V
15	5.00	3.00	15.00	1-A	51	1.46	5.60	8.20	1-A	14	3.58	3.00	10.60	1-3V	52	0.95	4.40	4.20	2-A
16	4.73	3.00	14.00	1-3V	52	1.42	3.35	4.75	2-3V	14	3.53	3.40	12.00	1-A	53	0.94	6.90	6.50	1-3V
16	4.69	3.20	15.00	1-A	52	1.42	5.20	7.40	1-B	15	3.40	3.15	10.60	1-3V	53	0.93	6.00	6.00	1-B
17	4.50	3.15	14.00	1-3V	53	1.42	4.80	6.80	1-B	15	3.31	3.20	10.60	1-A	54	0.92	6.50	6.00	1-3V
17	4.41	3.40	15.00	1-A	54	1.38	5.00	6.90	1-3V	16	3.06	2.65	8.00	2-3V	54	0.91	6.60	6.00	1-B
18	4.23	3.35	14.00	1-3V	54	1.38	4.80	6.60	1-B	16	3.12	3.40	10.60	1-A	56	0.88	4.12	3.65	3-3V
18	4.17	3.60	15.00	1-A	56	1.34	6.00	8.00	1-3V	17	2.89	2.80	8.00	2-3V	56	0.88	6.60	6.00	1-B
19	3.88	3.65	14.00	1-3V	56	1.33	4.80	6.40	1-B	17	2.94	3.60	10.60	1-A	57	0.87	6.90	6.00	1-3V
19	3.95	3.80	15.00	1-A	57	1.30	5.00	6.50	1-3V	18	2.69	3.00	8.00	2-3V	57	0.87	6.20	5.40	2-3V
20	3.75	3.20	12.00	1-A	57	1.32	5.00	6.60	1-B	18	2.79	3.80	10.60	1-A	58	0.85	5.30	5.00	2-3V
22	3.40	3.15	10.60	1-3V	58	1.29	4.12	5.30	2-3V	19	2.63	2.65	6.90	2-3V	58	0.85	6.80	6.50	1-B
22	3.33	3.60	12.00	1-A	58	1.29	4.80	6.20	1-B	19	2.65	4.00	10.60	1-A	59	0.83	6.00	5.00	2-3V
23	3.20	3.35	10.60	1-3V	59	1.27	4.75	6.00	2-3V	20	2.48	2.65	6.50	2-3V	59	0.84	6.20	5.20	1-B
23	3.31	3.20	10.60	1-A	59	1.27	5.20	6.60	1-B	20	2.52	4.20	10.60	1-A	60	0.82	5.00	4.12	2-3V
24	3.06	2.65	8.00	2-3V	60	1.23	5.60	6.90	1-3V	22	2.21	3.65	8.00	1-3V	60	0.82	6.60	5.40	1-B
24	3.12	3.40	10.60	1-A	60	1.25	4.80	6.00	1-3V	22	2.25	4.00	9.00	1-A	61	0.81	6.90	6.00	1-3V
25	2.93	3.65	10.60	1-3V	61	1.23	5.30	6.50	1-3V	23	2.13	2.65	5.60	2-3V	61	0.81	6.40	5.20	1-B
25	2.94	3.60	10.60	1-A	61	1.23	5.20	6.40	1-B	23	2.16	3.80	8.20	1-A	63	0.79	6.00	4.75	2-3V
26	2.89	2.80	8.00	2-3V	62	1.20	5.00	6.00	1-3V	24	2.02	2.65	5.30	2-3V	63	0.78	6.40	5.00	1-B
26	2.86	4.20	12.00	1-A	62	1.21	4.80	5.80	1-B	24	2.05	4.00	8.20	1-A	64	0.78	5.30	4.12	2-3V
27	2.77	6.90	19.00	1-3V	64	1.16	5.60	6.50	1-3V	25	1.95	4.12	8.00	1-3V	64	0.77	6.60	6.00	1-B
27	2.73	4.40	12.00	1-A	64	1.17	4.80	5.60	1-B	25	1.95	4.20	8.20	1-A	65	0.77	6.90	5.30	1-3V
28	2.63	2.65	6.90	2-3V	65	1.15	6.00	6.90	1-3V	26	1.90	3.65	6.90	1-3V	65	0.76	6.60	5.00	1-B
28	2.65	4.00	10.60	1-A	65	1.15	5.20	6.00	1-B	26	1.87	4.60	8.60	1-B	66	0.75	8.00	6.00	1-3V
29	2.56	3.15	8.00	2-3V	66	1.13	5.30	6.00	1-3V	27	1.80	3.35	6.00	2-3V	66	0.74	8.60	6.40	1-B
29	2.61	4.60	12.00	1-A	66	1.13	4.80	5.40	1-B	27	1.80	5.00	9.00	1-A	67	0.73	5.60	4.12	2-3V
30	2.48	2.65	6.50	2-3V	67	1.12	5.00	5.60	1-3V	28	1.79	4.50	8.00	1-3V	67	0.74	6.80	5.00	1-B
30	2.52	4.20	10.60	1-A	67	1.12	5.00	5.60	1-B	28	1.79	4.80	8.60	1-B	68	0.73	5.00	3.65	2-3V
31	2.41	3.35	8.00	2-3V	68	1.09	4.12	4.50	2-3V	29	1.69	4.75	8.00	1-3V	68	0.73	7.40	5.40	1-B
31	2.41	4.40	10.60	1-A	68	1.10	5.80	6.40	1-B	29	1.72	5.00	8.60	1-B	69	0.72	5.00	3.60	2-A
33	2.29	2.65	6.00	2-3V	69	1.08	6.00	6.50	1-3V	30	1.65	3.65	6.00	2-3V	70	0.70	4.75	3.35	3-3V
33	2.25	4.00	9.00	1-A	69	1.08	4.80	5.20	1-B	30	1.64	5.00	8.20	1-A	70	0.71	6.80	4.80	1-B
34	2.21	3.65	8.00	1-3V	70	1.06	5.00	5.30	1-3V	31	1.60	3.15	5.00	2-3V	72	0.69	5.30	3.65	2-3V
34	2.21	4.80	10.60	1-A	70	1.07	5.60	6.00	1-B	31	1.61	4.60	7.40	1-B	72	0.69	9.00	6.20	1-A
35	2.13	2.65	5.60	2-3V	71	1.06	5.30	5.60	1-3V	33	1.52	3.15	4.75	2-3V	73	0.68	7.40	5.00	1-B
35	2.14	4.20	9.00	1-A	71	1.06	3.60	3.80	2-A	33	1.48	4.60	6.80	1-B	74	0.67	5.00	3.35	2-3V
36	2.08	3.15	6.50	2-3V	72	1.04	5.00	5.20	1-B	34	1.45	4.50	6.50	1-3V	74	0.67	9.00	6.00	1-A
36	2.05	4.00	8.20	1-A	75	1.00	4.50	4.50	2-3V	34	1.43	4.60	6.60	1-B	75	0.66	4.50	3.00	4-3V
37	2.02	2.65	5.30	2-3V	75	1.00	6.20	6.20	1-B	35	1.42	4.75	7.25	2-3V	75	0.66	9.40	6.20	1-B
37	2.04	4.60	9.40	1-B	77	0.97	6.40	6.20	1-B	35	1.42	4.80	6.80	1-B	77	0.64	9.40	6.00	1-B
38	1.95	4.12	8.00	1-3V	79	0.94	6.90	6.50	1-3V	36	1.37	4.75	6.50	1-3V	78	0.63	6.50	4.12	2-3V
38	1.95	4.20	8.20	1-A	79	0.94	6.60	6.20	1-B	36	1.39	4.60	6.40	1-B	78	0.63	6.00	3.80	3-A
39	1.90	3.65	6.90	1-3V	80	0.93	6.00	5.60	2-3V	37	1.34	4.50	6.00	1-3V	79	0.63	5.30	3.35	3-3V
39	1.93	3.00	5.80	2-A	80	0.94	6.40	6.00	1-B	37	1.35	4.60	6.20	1-B	79	0.63	5.40	3.40	3-A
40	1.88	3.00	5.60	2-3V	81	0.92	3.65	3.35	3-3V	38	1.30	5.00	6.50	1-3V	80	0.62	9.40	6.00	1-B
40	1.86	4.40	8.20	1-A	81	0.92	7.40	6.80	1-B	38	1.30	4.60	6.00	1-B	81	0.61	10.60	5.80	1-3V
41	1.81	2.65	4.75	2-3V	82	0.91	4.50	4.12	2-3V	40	1.25	4.50	5.60	1-3V	81	0.61	5.60	3.40	3-A
41	1.80	5.00	9.00	1-A	82	0.91	6.60	6.00	1-B	40	1.25	4.80	6.00	1-B	83	0.59	6.90	4.12	2-3V
42	1.79	3.65	5.60	1-3V	83	0.90	5.00	4.50	2-3V	41	1.20	5.00	6.00	1-3V	83	0.59	6.40	2.80	3-A
42	1.78	4.60	8.20	1-A	83	0.89	3.80	3.40	3-A	41	1.22	4.60	5.60	1-B	84	0.59	5.30	3.15	3-3V
44	1.68	4.12	6.90	1-3V	84	0.88	4.12	3.65	3-3V	42	1.18	4.50	5.30	1-3V	84	0.59	5.80	3.40	3-A
44	1.71	4.80	8.20	1-A	84	0.89	7.40	6.60	1-B	42	1.17	4.60	5.40	1-B	85	0.58	11.00	6.40	1-B
45	1.65	3.65	6.00	1-3V	85	0.88	6.00	5.30	2-3V	43	1.16	3.15	3.65	2-3V					
45	1.67	4.20	7.00	1-A	85	0.88	6.60	5.80	1-B	43	1.16	5.00	5.80	1-B					
46	1.62	2.80	4.50	2-3V						44	1.12	4.75	5.30	1-3V					
46	1.61	4.60	7.40	1-B						44	1.13	4.60	5.20	1-B					
47	1.59	3.35	5.30	2-3V						45	1.09	3.35	3.65	2-3V					
47	1.59	5.40	8.60	1-B						45	1.11	5.40	6.00	1-B					
48	1.54	3.65	5.60	2-3V						46	1.07	5.60	6.00	1-3V					

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V), pitch diameters for A & B sheaves. All ratios based on P.D.  
Sheaves in shaded area represent speed up drives.



# V-belt Drives for TXT315 & SXT315 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driver sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Output RPM	V-belt Drive Ratio	Sheave		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
12	9.60	2.65	25.00	2.3V	71	1.67	6.60	11.00	1-B	11	7.29	2.65	19.00	2.3V	72	1.08	6.00	6.50	2.3V
16	7.29	2.65	19.00	2.3V	73	1.61	5.00	8.00	2.3V	12	6.42	3.00	19.00	2.3V	72	1.08	4.80	5.20	2-B
18	6.42	3.00	19.00	1.3V	73	1.62	5.80	9.40	2-B	14	5.74	3.35	19.00	1.3V	74	1.06	5.00	5.30	3.3V
19	6.11	3.15	19.00	2.3V	75	1.57	6.00	9.40	2-B	14	5.63	3.20	18.00	2-A	75	1.03	5.80	6.00	2-B
20	5.74	3.35	19.00	2.3V	76	1.54	4.50	6.90	3.3V	16	4.73	3.00	14.00	2.3V	78	1.00	6.50	6.50	2.3V
20	6.00	3.00	18.00	2-A	76	1.54	4.80	7.40	2-B	16	5.00	3.00	15.00	2-A	78	1.00	9.40	9.40	1-B
21	5.63	3.20	18.00	2-A	77	1.52	4.20	6.40	3-A	18	4.26	4.50	19.00	1.3V	80	0.97	6.40	6.20	2-B
22	5.37	2.65	14.00	2.3V	79	1.49	7.40	11.00	1-B	18	4.29	4.20	18.00	1-A	82	0.95	5.00	4.75	3.3V
22	5.29	3.40	18.00	2-A	81	1.45	4.50	6.50	3.3V	20	3.88	3.65	14.00	2.3V	82	0.95	4.40	4.20	4-A
23	5.07	2.80	14.00	2.3V	81	1.45	4.40	6.40	3-A	20	3.83	4.80	18.40	1-B	84	0.93	6.00	5.60	3.3V
24	5.00	3.00	15.00	2-A	83	1.42	4.80	6.80	2-B	21	3.75	3.20	12.00	2-A	84	0.93	6.00	5.60	2-B
25	4.73	3.00	14.00	2.3V	85	1.38	5.00	6.90	2.3V	23	3.40	3.15	10.60	1.3V	86	0.90	6.20	5.60	2-B
25	4.69	3.20	15.00	2-A	85	1.38	4.20	5.80	3-A	23	3.35	4.60	15.40	1-B	87	0.90	5.30	4.75	2-B
27	4.29	4.20	18.00	1-A	87	1.36	14.00	19.00	1.3V	25	3.13	4.50	14.00	1.3V	87	0.90	6.00	5.20	2-B
28	4.26	4.50	19.00	1.3V	87	1.35	4.60	6.20	3-A	25	3.12	3.40	10.60	2-A	88	0.88	6.00	5.30	3.3V
28	4.17	3.60	15.00	2-A	89	1.33	8.00	10.60	1.3V	27	2.93	3.65	10.60	2.3V	88	0.88	5.20	4.60	3-B
29	4.06	2.65	10.60	2.3V	89	1.32	5.00	6.60	2-B	27	2.88	5.20	15.00	1-A	89	0.88	6.40	5.60	2-B
29	4.00	3.00	12.00	2-A	91	1.29	4.12	5.30	3.3V	28	2.82	5.00	14.00	1.3V	90	0.87	6.90	6.00	2.3V
31	3.84	2.80	10.60	2.3V	91	1.29	4.80	6.20	2-B	28	2.81	3.20	9.00	2-A	90	0.87	6.20	5.40	2-B
31	3.75	3.20	12.00	1-A	92	1.28	5.00	6.40	2-B	30	2.56	3.15	8.00	2.3V	92	0.85	5.30	4.50	3.3V
32	3.68	5.00	18.40	1-B	94	1.25	4.50	5.60	3.3V	30	2.56	3.20	8.20	1.3V	92	0.84	6.40	5.40	2-B
34	3.43	4.12	14.00	2.3V	94	1.25	4.80	6.00	2-B	31	2.51	5.60	14.00	1.3V	93	0.84	6.20	5.20	2-B
34	3.41	4.40	15.00	2-A	96	1.23	5.30	6.50	2.3V	31	2.48	5.00	12.40	1-B	94	0.83	5.00	4.50	3.3V
36	3.31	3.20	10.60	3-A	96	1.23	5.20	6.40	2-B	33	2.37	4.50	10.60	2.3V	94	0.83	5.80	4.80	3-A
37	3.20	3.35	10.60	2.3V	98	1.20	5.00	6.00	2.3V	33	2.39	4.60	11.00	2-B	96	0.81	4.50	3.65	4.3V
37	3.16	3.80	12.00	2-A	98	1.20	5.00	6.00	2-B	35	2.21	3.65	8.00	3.3V	96	0.81	6.40	5.20	2-B
38	3.13	4.50	14.00	2.3V	99	1.19	5.20	6.20	2-B	35	2.21	4.80	10.60	2-A	97	0.80	5.60	4.50	3.3V
38	3.00	5.00	15.40	1-B	101	1.16	5.60	6.50	2.3V	36	2.19	3.00	6.50	4.3V	97	0.80	6.00	4.80	3-A
40	2.93	3.65	10.60	2.3V	101	1.16	7.40	8.60	1-B	36	2.14	5.80	12.40	1-B	100	0.78	6.40	5.00	2-B
40	2.94	3.60	10.60	2-A	103	1.14	4.20	8.80	2-B	38	2.08	3.25	6.30	3.3V	102	0.77	6.80	5.20	2.3V
41	2.85	5.40	15.40	1-B	104	1.13	5.30	6.00	2.3V	38	2.07	6.00	12.40	1-B	102	0.75	6.00	4.50	3.3V
42	2.82	5.00	14.00	1.3V	104	1.13	4.60	5.20	3-A	40	1.95	4.12	8.00	2.3V	104	0.75	6.40	4.80	3-A
42	2.79	3.80	10.60	2-A	105	1.12	5.00	5.60	2.3V	40	1.96	5.60	11.00	1-B	104	0.75	6.40	4.80	3-A
44	2.69	3.00	8.00	3.3V	105	1.13	4.80	5.40	2-B	42	1.86	4.40	8.20	2-A	105	0.74	6.20	4.60	3-A
44	2.65	4.00	10.60	2-A	107	1.10	4.20	4.60	3-A	43	1.80	3.35	6.00	3.3V	107	0.73	5.00	3.65	4.3V
45	2.59	4.12	10.60	2.3V	108	1.09	4.12	4.50	3.3V	43	1.83	6.00	11.00	1-B	107	0.73	7.40	5.40	2-B
45	2.61	4.60	12.00	2-A	108	1.09	8.60	9.40	1-B	45	1.72	6.40	11.00	1-B	109	0.71	7.00	5.00	3-A
47	2.51	5.60	14.00	1.3V	109	1.08	4.80	5.20	2-B	47	1.65	3.65	6.00	3.3V	111	0.70	7.40	5.20	2-B
47	2.48	5.00	12.40	1-B	111	1.06	5.00	5.30	2.3V	47	1.65	3.40	5.60	3-A	112	0.70	8.00	5.60	2.3V
50	2.34	6.00	14.00	1.3V	111	1.06	5.40	6.80	2-B	49	1.58	4.12	5.60	2.3V	113	0.69	6.40	4.40	3-A
50	2.37	3.80	9.00	2-A	113	1.04	5.00	5.20	2-B	49	1.58	3.40	5.40	3-A	113	0.69	6.50	4.50	3.3V
52	2.24	4.75	10.60	2.3V	118	1.00	4.12	4.12	3.3V	50	1.57	6.00	9.40	1-B	115	0.68	7.40	5.00	2-B
52	2.28	3.60	8.20	3-A	118	1.00	8.60	8.60	1-B	51	1.54	4.50	6.90	2.3V	115	0.68	7.40	5.00	2-B
54	2.19	3.00	6.50	4.3V	121	0.97	6.40	6.20	2-A	51	1.54	5.60	8.60	1-B	117	0.67	5.00	3.35	4.3V
54	2.19	3.20	7.00	4-A	122	0.96	5.20	5.00	2-B	52	1.49	7.40	11.00	1-B	117	0.67	9.00	6.00	2-A
56	2.12	5.20	11.00	2-B	124	0.95	5.60	5.30	2.3V	53	1.46	4.12	6.00	3.3V	119	0.66	6.40	4.20	3-A
57	2.08	3.35	6.90	3-B	124	0.95	3.80	3.60	4-A	53	1.48	5.00	7.40	2-B	121	0.64	9.00	5.80	2-A
57	2.05	4.00	8.20	3-A	126	0.93	5.80	5.40	2-B	55	1.42	4.80	8.60	2-B	122	0.64	9.40	6.00	2-B
59	2.01	5.00	10.60	2.3V	126	0.93	6.00	5.60	2.3V	56	1.38	5.00	6.90	3.3V	124	0.63	6.50	4.12	3.3V
59	2.00	6.20	12.40	1-B	128	0.92	4.80	4.40	3-A	56	1.38	4.20	5.80	3-A	124	0.63	8.60	5.40	2-B
61	1.92	3.15	6.00	4.3V	129	0.91	4.50	4.12	3.3V	58	1.34	4.50	6.00	2.3V	125	0.62	8.00	5.00	2.3V
61	1.94	6.40	12.40	1-B	129	0.91	4.90	8.60	1-B	58	1.33	4.80	6.40	2-B	125	0.62	7.40	4.50	2-B
63	1.88	3.00	5.60	4.3V	130	0.90	6.20	5.60	2-A	60	1.29	4.12	5.30	3.3V	126	0.62	9.40	5.80	2-B
63	1.88	6.60	12.40	1-B	131	0.90	5.30	4.75	2.3V	60	1.29	4.80	6.20	2-B	128	0.61	10.60	6.50	2.3V
64	1.82	6.80	12.40	1-B	131	0.90	5.80	5.20	2-B	61	1.27	7.40	9.40	1-B	128	0.61	5.60	3.40	4-A
65	1.80	3.35	6.00	3.3V	133	0.88	6.00	5.30	2.3V	63	1.23	5.30	6.50	2.3V	130	0.60	9.00	5.40	2-A
65	1.80	5.00	9.00	2-A	133	0.88	5.20	4.60	2-B	63	1.24	5.00	6.20	2-B	132	0.59	8.00	4.75	2.3V
66	1.79	4.50	8.00	2.3V	134	0.88	4.80	4.20	3-A	65	1.20	5.00	6.00	3.3V	132	0.59	18.00	10.60	2-A
66	1.77	6.20	11.00	1-B	136	0.87	4.75	4.12	3.3V	65	1.21	4.80	5.80	2-B	134	0.58	8.60	5.00	2-B
68	1.72	6.40	11.00	1-B	136	0.86	5.80	5.00	2.3V	67	1.16	5.60	6.50	2.3V	136	0.57	7.00	4.00	3-A
69	1.69	3.15	5.30	4.3V	137	0.86	5.50	5.60	2.3V	67	1.16	7.40	8.60	1-B	137	0.57	14.00	8.00	1.3V
69	1.71	4.80	8.20	2-A	137	0.86	8.60	7.40	1-B	68	1.15	4.12	4.75	3.3V	138	0.56	10.60	6.00	2.3V
70	1.68	4.12	6.90	2.3V	138	0.85	5.40	4.60	2-B	68	1.15	5.20	6.00	2-B	138	0.57	10.60	6.00	2-A
70	1.68	3.80	6.40	3-A	139	0.85	5.60	4.75	2.3V	70	1.11	4.50	5.00	3.3V	139	0.56	8.00	4.50	2.3V
71	1.65	3.65	6.00	3.3V	139	0.84	6.40	5.40	2-A	70	1.12	5.00	5.60	2-B	139	0.56	8.20	4.60	3-A

Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

\* Dodge stock sheaves. Outside diameters shown for DYNA-V (3V); pitch diameters for A & B sheaves. All

## V-belt Drives for TXT325 & SCXT325 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	7.29	2.65	19.00	1-3V	48	1.46	4.12	6.00	2-3V	10	4.73	3.00	14.00	1-3V	49	0.95	5.00	4.75	2-3V
11	6.42	3.00	19.00	1-3V	48	1.48	5.00	7.40	1-B	10	4.69	3.20	15.00	1-A	49	0.97	5.80	5.60	1-B
12	6.11	3.15	19.00	1-3V	49	1.43	5.60	8.00	1-3V	11	4.23	3.35	14.00	1-3V	50	0.94	6.30	6.50	1-3V
12	6.00	3.00	18.00	2-A	49	1.43	6.00	8.60	1-B	11	4.41	3.40	15.00	1-A	50	0.93	6.00	5.60	1-B
13	5.37	2.65	14.00	2-3V	50	1.42	3.35	4.75	2-3V	12	3.88	3.55	14.00	1-3V	52	0.90	5.00	4.50	2-3V
14	5.63	3.20	18.00	1-A	50	1.42	4.80	6.80	1-B	12	4.00	3.00	12.00	2-A	52	0.90	6.00	5.40	1-B
14	5.07	2.80	14.00	2-3V	51	1.38	5.00	6.90	1-3V	14	3.43	4.12	14.00	1-3V	53	0.88	4.12	3.65	3-3V
14	5.00	3.60	18.00	1-A	51	1.39	3.60	5.00	2-A	14	3.31	3.20	10.60	2-A	53	0.88	6.60	5.80	1-B
15	4.73	3.00	14.00	1-3V	52	1.38	3.65	5.00	2-3V	15	3.06	2.65	8.00	2-3V	54	0.87	6.90	6.00	1-3V
15	4.69	3.20	15.00	1-A	52	1.38	4.80	6.60	1-B	15	3.16	3.80	12.00	1-A	54	0.87	6.20	5.40	1-B
16	4.50	3.15	14.00	1-3V	53	1.35	3.35	4.50	2-3V	16	2.89	2.80	8.00	2-3V	55	0.85	5.30	4.50	2-3V
16	4.41	3.40	15.00	1-A	53	1.33	4.80	6.40	1-B	16	3.00	4.00	12.00	1-A	55	0.85	6.00	5.00	1-B
17	4.23	3.35	14.00	1-3V	54	1.30	5.00	6.50	1-3V	17	2.69	3.00	8.00	2-3V	56	0.83	6.20	5.20	2-3V
17	4.17	3.60	15.00	1-A	54	1.32	5.00	6.60	1-B	17	2.79	3.80	10.60	1-A	56	0.84	6.20	5.20	1-B
18	3.88	3.65	14.00	1-3V	56	1.27	4.75	6.00	2-3V	18	2.65	6.90	6.90	2-3V	57	0.82	5.00	4.12	2-3V
18	3.95	3.80	15.00	1-A	56	1.27	5.20	6.60	1-B	19	2.41	3.35	8.00	2-3V	58	0.81	6.90	6.00	1-3V
19	3.23	3.00	19.00	1-3V	57	1.23	5.60	6.90	1-3V	19	2.41	3.40	8.20	2-A	58	0.81	6.40	5.20	1-B
19	2.75	3.20	12.00	2-A	57	1.25	4.80	6.00	1-B	20	2.32	3.00	6.90	2-3V	60	0.78	6.40	5.00	1-B
20	3.58	3.00	10.60	2-3V	58	1.23	5.30	6.50	1-3V	20	2.39	4.60	11.00	1-B	61	0.77	6.90	5.30	1-3V
20	3.53	3.00	10.60	2-A	58	1.23	5.20	6.40	1-B	21	2.21	3.15	6.90	2-3V	61	0.76	6.90	5.20	1-B
21	3.43	4.12	14.00	1-3V	59	1.20	5.00	6.00	1-3V	21	2.20	5.00	11.00	1-B	62	0.76	4.12	3.15	3-3V
21	3.31	3.20	10.60	2-A	59	1.21	4.80	5.80	1-B	23	2.08	3.15	6.50	2-3V	62	0.76	6.00	5.00	1-B
22	3.20	3.35	10.60	2-3V	60	1.18	4.50	5.30	2-3V	23	2.04	4.60	9.40	1-B	63	0.75	6.60	5.00	1-3V
22	3.26	4.60	15.00	1-A	60	1.19	5.40	6.40	1-B	24	1.92	3.15	6.00	2-3V	63	0.74	8.60	6.00	1-3V
23	3.06	2.65	8.00	2-3V	61	1.16	5.60	6.50	1-3V	24	1.96	4.80	9.40	1-B	64	0.73	5.60	4.12	2-3V
23	3.12	3.40	10.60	2-A	61	1.17	4.80	5.60	1-B	25	1.90	3.65	6.90	2-3V	64	0.74	6.80	5.00	1-B
25	2.89	2.80	8.00	2-3V	62	1.15	6.00	6.90	1-3V	25	1.87	4.60	8.60	1-B	65	0.73	5.00	3.65	2-3V
25	2.86	3.20	12.00	1-A	62	1.15	5.40	6.20	1-B	26	1.79	4.50	8.00	1-3V	65	0.72	5.00	3.60	2-A
26	2.69	3.00	8.00	2-3V	63	1.12	5.00	5.60	1-3V	26	1.79	4.80	8.60	1-B	66	0.71	8.20	5.80	1-A
26	2.73	4.40	12.00	1-A	63	1.13	4.80	5.40	1-B	27	1.75	8.00	14.00	1-3V	67	0.70	8.60	6.00	1-3V
27	2.63	2.65	6.90	2-3V	64	1.11	4.50	5.00	2-3V	27	1.72	5.00	8.60	1-B	67	0.70	8.60	5.80	1-B
27	2.65	4.00	10.60	1-A	64	1.12	5.20	5.80	1-B	28	1.69	4.75	8.00	1-3V	68	0.68	7.40	5.00	1-B
29	2.48	2.65	6.50	2-3V	65	1.08	6.00	6.50	1-3V	28	1.65	5.20	8.60	1-B	69	0.67	7.40	5.00	1-B
29	2.41	4.40	10.60	1-A	65	1.08	4.80	5.20	1-B	28	1.65	5.20	8.60	1-B	69	0.67	7.40	5.00	1-B
30	2.35	2.80	6.50	2-3V	66	1.07	5.60	6.00	1-3V	29	1.60	3.15	5.00	2-3V	70	0.67	8.60	5.80	1-B
30	2.35	4.60	11.00	1-B	66	1.08	5.00	5.40	1-B	30	1.59	3.35	5.30	2-3V	71	0.66	8.00	5.30	1-3V
31	2.29	2.65	6.00	2-3V	68	1.04	5.00	5.20	1-B	30	1.54	4.80	7.40	1-B	71	0.66	9.40	6.20	1-B
31	2.25	4.00	9.00	1-A	69	1.03	6.00	6.20	1-B	32	1.45	4.50	6.50	1-3V	72	0.65	5.60	3.65	2-3V
32	2.21	3.65	8.00	1-3V	71	1.00	5.00	5.00	1-3V	32	1.48	4.60	6.80	1-B	72	0.65	7.40	4.80	1-B
32	2.21	4.80	10.60	1-A	71	1.00	5.00	5.00	1-B	34	1.36	4.12	5.60	2-3V	73	0.64	9.00	5.80	1-A
33	2.13	5.00	10.60	1-3V	73	0.96	5.60	5.40	1-B	34	1.39	6.20	8.60	1-B	74	0.63	9.40	6.00	1-3V
33	2.12	5.20	11.00	1-B	74	0.95	3.15	3.00	3-3V	35	1.34	4.50	6.00	2-3V	74	0.62	8.00	5.00	1-B
34	2.08	3.35	6.90	2-3V	74	0.96	5.00	4.80	1-B	35	1.34	4.60	6.60	1-B	75	0.62	8.60	5.40	1-B
34	2.07	5.80	12.00	1-A	75	0.94	5.30	5.00	1-3V	36	1.29	4.12	5.30	2-3V	75	0.63	8.60	5.40	1-B
35	2.02	3.00	6.00	3-3V	75	0.95	3.80	3.60	2-A	36	1.29	4.12	5.30	2-3V	76	0.62	7.40	4.60	1-B
35	2.04	5.40	11.00	1-B	76	0.93	6.00	5.60	1-3V	37	1.27	5.60	7.40	1-B	76	0.62	7.40	4.60	1-B
36	1.95	3.35	6.50	2-3V	76	0.93	5.00	5.20	1-B	37	1.27	4.75	6.00	2-3V	78	0.61	6.00	3.65	2-3V
36	1.96	4.80	9.40	1-B	78	0.90	6.20	5.60	1-B	38	1.23	5.80	7.40	1-B	78	0.60	6.60	5.20	1-B
37	1.90	3.65	6.90	2-3V	79	0.90	5.30	4.75	1-3V	38	1.23	6.00	8.00	1-3V	79	0.59	6.00	4.75	1-3V
37	1.90	5.80	11.00	1-B	79	0.89	5.60	5.00	1-B	39	1.21	5.60	6.80	1-B	80	0.59	9.40	5.60	1-B
39	1.80	3.35	6.00	2-3V	80	0.88	6.00	5.30	1-3V	39	1.22	4.12	5.00	2-3V	80	0.59	5.30	3.15	2-3V
39	1.81	5.20	9.40	1-B	80	0.88	5.20	4.60	1-B	41	1.15	4.12	4.75	2-3V	81	0.58	8.60	5.00	2-A
40	1.79	3.65	6.00	2-3V	81	0.87	6.20	5.40	1-B	41	1.14	5.60	6.40	1-B	83	0.56	10.60	6.00	1-3V
40	1.79	4.80	8.60	1-B	82	0.86	6.50	5.60	1-3V	42	1.11	4.50	5.00	2-3V	83	0.57	6.00	3.40	2-A
41	1.72	5.00	8.60	1-B	82	0.86	5.80	5.00	1-3V	42	1.11	5.60	6.20	1-B	84	0.56	8.00	4.50	1-3V
43	1.65	3.65	6.00	2-3V	83	0.85	5.40	4.60	1-B	43	1.09	4.12	4.50	2-3V	84	0.56	6.00	4.80	1-B
43	1.65	5.20	8.60	1-B	85	0.83	6.00	5.00	1-3V	43	1.10	5.80	6.40	1-B	85	0.55	6.00	3.35	2-3V
44	1.61	5.00	8.00	1-3V	85	0.83	6.00	5.00	1-B	44	1.06	6.50	6.90	1-3V	85	0.55	9.40	5.20	1-B
44	1.59	5.40	8.60	1-B						44	1.07	5.80	6.20	1-B					
45	1.59	3.35	5.30	2-3V						45	1.05	4.75	5.00	2-3V					
45	1.57	6.00	9.40	1-B						45	1.03	5.80	6.00	1-B					
46	1.54	3.65	5.00	2-3V						47	1.00	6.50	6.50	1-3V					
46	1.54	4.80	7.40	1-B						47	1.00	5.80	5.80	1-B					
47	1.50	3.35	5.00	2-3V						48	0.97	6.40	6.20	1-B					
47	1.50	6.00	9.00	1-A															

Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V), pitch diameters for A & B sheaves. All ratios based on F.D. Sheaves in shaded area represent speed up drives.



# V-belt Drives for TXT415 & SCXT415 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driver sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors

Driven by 1160 RPM Motors

Output RPM	V-belt Drive Ratio	Sheave Diameters ★			Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★			Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★			Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★			Qty. & Belt Size
		Driver	Driven	★				Driver	Driven	★				Driver	Driven	★				Driver	Driven	★	
12	9.60	2.65	25.00	2-3V	75	1.54	4.80	7.40	3-B	10	8.05	3.15	25.00	2-3V	73	1.06	5.30	5.60	4-3V				
13	9.07	2.80	25.00	2-3V	77	1.50	6.00	9.00	3-A	11	6.93	3.65	25.00	2-3V	73	1.04	4.60	4.80	6-A				
15	7.56	3.35	25.00	2-3V	79	1.46	4.75	6.90	4-3V	13	6.11	3.15	19.00	2-3V	74	1.03	5.80	6.00	3-B				
16	7.29	3.65	19.00	2-3V	81	1.43	6.40	9.40	2-B	13	6.00	3.00	18.00	3-A	77	1.00	6.50	6.50	3-3V				
18	6.42	3.00	19.00	2-3V	81	1.43	5.60	8.00	3-3V	14	5.29	3.40	18.00	2-A	77	1.00	5.80	5.80	3-B				
19	6.11	3.15	19.00	2-3V	81	1.43	6.00	8.60	2-B	16	4.73	3.00	14.00	2-3V	79	0.97	5.80	5.60	3-B				
19	6.00	3.00	18.00	2-A	84	1.38	5.00	6.90	3-3V	16	4.69	3.20	15.00	2-A	81	0.94	5.50	5.00	4-3V				
21	5.61	4.50	25.00	2-3V	84	1.38	4.80	6.60	3-B	18	4.26	5.00	19.00	2-3V	81	0.94	6.80	6.40	3-B				
21	5.63	3.20	18.00	3-A	86	1.34	6.40	8.60	2-B	18	4.17	3.60	15.00	2-A	83	0.92	5.20	4.80	4-B				
23	5.00	3.00	15.00	3-A	87	1.34	4.50	6.00	4-3V	20	3.88	3.65	14.00	3-3V	83	0.92	5.00	5.00	3-3V				
24	4.73	3.00	14.00	3-3V	87	1.33	4.80	6.40	3-B	20	3.75	4.00	15.00	3-A	85	0.90	6.00	5.00	3-B				
24	4.74	3.80	18.00	2-A	88	1.31	7.10	9.25	2-5V	22	3.43	4.12	14.00	2-3V	86	0.89	5.60	5.00	4-3V				
26	4.50	3.15	14.00	3-3V	88	1.32	5.00	6.60	3-B	22	3.53	3.40	12.00	3-A	86	0.89	5.40	4.80	4-B				
26	4.41	3.40	15.00	3-A	90	1.29	4.80	6.20	3-B	24	3.20	3.35	10.00	3-3V	88	0.87	6.90	6.00	3-3V				
28	4.17	3.60	15.00	3-A	91	1.27	4.75	6.00	4-3V	24	3.16	3.80	12.00	3-A	88	0.87	6.20	5.40	3-B				
29	4.03	4.75	19.00	1-3V	91	1.26	4.80	6.00	4-B	25	3.12	3.40	10.00	3-A	90	0.85	6.60	5.60	3-B				
29	3.95	3.80	15.00	2-A	92	1.26	5.40	6.80	3-B	27	2.82	3.50	14.00	2-3V	91	0.85	5.60	4.75	4-3V				
31	3.75	4.00	15.00	3-A	93	1.25	4.80	6.00	4-B	27	2.79	3.80	10.00	3-A	91	0.84	6.20	5.20	3-B				
32	3.58	3.00	10.60	4-3V	94	1.23	5.30	6.50	4-3V	29	2.66	5.30	14.00	2-3V	93	0.82	10.30	8.50	2-5V				
32	3.57	4.20	15.00	3-A	94	1.23	6.00	7.40	3-B	29	2.66	5.80	15.40	1-B	93	0.82	6.80	5.60	4-B				
34	3.40	3.15	10.60	4-3V	96	1.20	5.00	6.00	4-3V	31	2.51	5.60	14.00	2-3V	95	0.81	6.90	5.60	4-3V				
34	3.41	4.40	15.00	3-A	96	1.21	4.80	5.80	4-B	31	2.48	5.00	12.40	2-B	95	0.81	7.40	6.00	4-B				
35	3.33	3.60	12.00	3-A	97	1.19	6.20	7.40	3-B	32	2.37	4.50	10.60	3-3V	96	0.80	6.00	4.80	6-A				
37	3.13	4.50	14.00	2-3V	98	1.18	4.75	5.60	5-3V	32	2.38	5.20	12.40	2-B	97	0.79	6.00	4.75	5-3V				
37	3.16	3.80	12.00	3-A	98	1.18	5.60	6.60	3-B	34	2.24	4.75	10.60	3-3V	97	0.79	6.60	5.20	4-B				
38	3.08	5.00	15.40	2-B	99	1.17	5.80	8.00	3-B	34	2.25	4.00	9.00	4-A	98	0.78	11.00	8.60	2-B				
39	2.93	3.65	10.60	3-3V	101	1.15	8.50	9.75	2-5V	37	2.05	4.40	9.00	3-A	100	0.77	6.90	5.30	4-3V				
39	2.94	3.60	10.60	3-A	101	1.14	5.60	6.40	3-B	38	2.01	5.40	10.60	2-3V	100	0.77	8.60	6.60	3-B				
41	2.82	5.00	14.00	2-3V	103	1.12	5.60	6.40	4-3V	38	2.04	5.40	11.00	2-B	102	0.75	8.00	6.00	4-3V				
41	2.85	5.40	15.40	2-B	103	1.13	4.80	5.40	4-B	40	1.90	5.60	10.60	2-3V	102	0.75	12.00	9.00	3-A				
43	2.70	4.60	12.40	3-B	104	1.12	4.75	5.30	5-3V	40	1.90	5.80	11.00	2-B	103	0.74	8.60	6.40	3-B				
44	2.66	5.30	14.00	2-3V	104	1.11	5.60	6.20	3-B	41	1.87	4.60	8.60	3-B	105	0.73	6.50	4.75	5-3V				
44	2.61	4.60	12.00	3-A	105	1.10	5.80	6.40	3-B	43	1.79	4.50	8.00	4-3V	105	0.73	7.40	5.40	4-B				
46	2.51	5.60	14.00	2-3V	106	1.09	5.50	9.25	2-5V	43	1.77	6.20	11.00	2-B	107	0.72	11.80	8.00	2-5V				
46	2.50	4.80	12.00	3-A	106	1.09	8.60	9.40	2-B	45	1.69	4.75	8.00	3-3V	107	0.72	6.40	4.60	5-B				
48	2.41	4.40	10.60	3-A	108	1.07	5.60	6.00	4-3V	45	1.72	6.40	11.00	2-B	108	0.71	8.20	5.80	4-A				
49	2.37	4.50	10.60	3-3V	108	1.07	5.80	6.20	3-B	46	1.68	5.60	9.40	2-B	109	0.71	6.80	4.80	4-B				
49	2.38	5.20	12.40	2-B	110	1.05	4.75	5.00	5-3V	48	1.61	5.00	8.00	3-3V	111	0.69	12.40	8.60	2-B				
51	2.25	4.00	9.00	4-A	110	1.06	9.00	9.50	2-C	48	1.61	4.60	7.40	3-B	112	0.69	6.90	4.75	5-3V				
52	2.24	4.75	10.60	3-3V	111	1.04	5.00	5.20	4-B	49	1.57	6.00	9.40	2-B	112	0.68	12.00	8.20	3-A				
52	2.21	5.60	12.40	2-B	116	1.00	5.00	5.00	4-3V	51	1.51	5.30	8.00	3-3V	114	0.68	11.80	8.00	2-5V				
54	2.13	5.00	10.60	2-3V	116	1.00	5.80	5.80	3-B	51	1.52	6.20	9.40	2-B	114	0.67	11.00	7.40	2-B				
54	2.14	4.20	9.00	3-A	119	0.97	6.40	6.20	3-B	52	1.48	5.80	8.60	2-B	115	0.67	9.00	6.00	4-A				
55	2.12	5.20	11.00	2-B	120	0.97	5.80	5.60	4-B	53	1.46	4.75	6.90	3-3V	117	0.66	6.40	4.20	6-A				
55	2.07	5.80	12.00	2-A	122	0.95	9.00	8.50	5-3V	53	1.43	4.60	6.60	3-B	118	0.65	10.60	6.90	3-3V				
56	2.04	6.90	14.00	2-3V	122	0.94	5.30	5.00	5-3V	55	1.38	5.00	6.90	3-3V	118	0.65	8.60	5.60	3-B				
57	2.04	5.40	11.00	2-B	123	0.94	5.30	5.00	5-3V	55	1.39	4.60	6.40	3-B	119	0.64	9.00	5.80	4-A				
59	1.95	4.12	8.00	3-3V	123	0.94	6.80	6.40	3-B	57	1.34	4.50	6.00	4-3V	121	0.63	11.80	7.50	2-5V				
59	1.96	4.80	9.40	2-B	125	0.92	6.50	6.00	4-3V	57	1.35	4.60	6.20	3-B	121	0.63	8.20	5.20	6-A				
61	1.90	5.60	10.60	2-3V	125	0.93	5.40	5.00	5-B	58	1.33	8.00	10.60	2-3V	123	0.62	8.00	5.00	5-3V				
61	1.90	5.80	11.00	2-B	127	0.91	6.60	6.00	4-B	58	1.32	5.60	7.40	2-B	123	0.62	7.40	4.60	5-B				
62	1.88	5.00	9.40	2-B	128	0.90	6.20	5.60	4-B	60	1.28	5.80	7.40	2-B	124	0.62	11.00	6.80	3-B				
64	1.80	10.60	19.00	1-3V	129	0.90	5.30	4.75	5-3V	61	1.27	4.75	6.00	3-3V	126	0.61	15.40	9.40	2-B				
64	1.81	5.20	9.40	2-B	129	0.90	5.80	5.20	4-B	61	1.26	4.60	5.80	3-B	127	0.60	13.20	8.00	2-5V				
66	1.75	8.00	14.00	1-3V	131	0.88	6.00	5.30	5-3V	63	1.21	5.60	6.80	2-B	127	0.60	8.60	5.20	4-B				
66	1.74	5.40	9.40	2-B	131	0.88	5.20	4.60	5-B	64	1.20	5.00	6.00	3-3V	129	0.60	9.40	5.60	4-B				
67	1.72	6.40	11.00	2-B	133	0.87	6.90	6.00	4-3V	64	1.20	5.00	6.00	3-B	132	0.58	11.00	6.40	3-B				
69	1.67	7.10	11.80	2-5V	133	0.87	6.00	5.20	4-B	66	1.16	6.90	8.00	2-3V	133	0.57	9.40	5.40	4-B				
69	1.67	6.60	11.00	2-B	135	0.85	11.00	9.40	2-B	66	1.17	9.40	11.00	1-B	135	0.57	14.00	8.00	3-3V				
70	1.65	5.20	8.60	3-B	136	0.85	6.60	5.60	4-B	68	1.13	5.30	6.00	4-3V	135	0.57	10.60	6.00	5-A				
72	1.61	5.00	8.00	3-3V	137	0.84	5.60	4.75	5-3V	68	1.13	6.00	6.80	3-B	137	0.56	16.00	9.00	2-5V				
72	1.62	6.80	11.00	2-B	137	0.84	7.40	6.20	3-B	69	1.12	4.75	5.30	5-3V	137	0.56	15.40	8.60	2-B				
73	1.59	5.40	8.60	3-B	138	0.84	8.00	7.00	2-3V	69	1.11	5.60	6.20	3-B	138	0.56	19.00	10.60	2-3V				
74	1.57	6.00	9.40	2-B	139	0.83	6.00	5.00	5-3V	71	1.08	6.00	6.00	4-3V	138	0.56	9.00	5.00	6-A				
75	1.54	4.50	6.90	4-3V	139	0.83	6.00	5.00	5-B	71	1.08	4.80	5.20	4-B	139	0.55	9.40	5.20	4-B				

Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor - refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYN-AV (3V & 5V); pitch diameters for A, B & C sheaves. All ratios based on P.D

## V-belt Drives for TXT425 & SCXT425 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	6.89	2.80	19.00	1.3V	48	1.49	7.40	11.00	1-B	10	4.73	3.00	14.00	2.3V	49	0.97	5.80	5.60	2-B
10	6.89	2.80	19.00	1.3V	49	1.46	4.12	6.00	3.3V	10	5.00	3.00	15.00	2.3V	50	0.95	5.00	4.75	3.3V
11	6.42	3.00	19.00	2.3V	49	1.48	5.00	7.40	2-B	11	4.50	3.15	14.00	2.3V	50	0.96	4.80	4.60	3-B
12	6.11	3.15	19.00	2.3V	50	1.43	5.60	8.00	2.3V	11	4.50	4.00	18.00	1-A	51	0.94	6.90	6.50	2.3V
12	6.00	3.00	18.00	2-A	50	1.43	4.20	6.00	3-A	12	4.03	4.75	19.00	1.3V	51	0.93	6.00	5.60	2-B
14	5.07	2.80	14.00	2.3V	51	1.42	4.80	6.80	2-B	12	4.00	4.60	18.00	1-B	52	0.92	6.50	6.00	2.3V
14	5.00	3.00	15.00	2-A	52	1.38	5.00	6.90	2.3V	13	3.58	3.80	10.60	2.3V	52	0.92	5.00	4.60	3-B
15	4.73	3.00	14.00	2.3V	52	1.38	4.80	6.60	2-B	13	3.75	3.20	12.00	2-A	53	0.90	5.30	4.75	3.3V
15	4.69	3.20	15.00	2-A	53	1.36	4.12	5.60	3.3V	15	3.12	4.50	14.00	1.3V	53	0.90	6.00	5.40	2-B
16	4.50	3.15	14.00	2.3V	53	1.36	5.00	6.80	2-B	15	3.12	3.40	10.60	2-A	54	0.88	6.00	5.30	2-B
16	4.41	3.40	15.00	2-A	55	1.31	5.20	6.80	2-B	16	2.97	4.75	14.00	1.3V	54	0.88	6.40	5.60	2.3V
17	4.26	4.50	19.00	1.3V	56	1.29	4.12	5.30	3.3V	16	2.94	5.00	10.60	2-A	55	0.87	6.90	6.00	2.3V
17	4.29	4.20	18.00	1-A	56	1.29	4.12	5.30	3.3V	17	2.82	5.00	14.00	1.3V	55	0.87	6.20	5.40	2-B
18	4.06	2.65	10.60	2.3V	56	1.29	4.80	6.20	2-B	17	2.81	3.20	9.00	2-A	57	0.83	6.00	5.00	3.3V
18	4.00	3.00	12.00	2-A	57	1.27	4.75	6.00	3.3V	18	2.69	3.00	8.00	3.3V	57	0.84	6.20	5.20	2-B
19	3.88	3.65	14.00	1.3V	57	1.27	7.40	9.40	1-B	18	2.70	4.60	12.40	1-B	58	0.82	5.00	4.12	4.3V
19	3.75	3.20	12.00	2-A	58	1.23	5.30	6.50	2.3V	19	2.56	3.15	8.00	2.3V	58	0.82	6.60	5.40	2-B
20	3.58	3.00	10.60	3.3V	58	1.24	5.00	6.20	2-B	19	2.56	3.20	8.20	2-A	59	0.81	4.50	3.65	4.3V
20	3.53	3.00	10.60	3-A	59	1.22	4.12	5.00	3.3V	20	2.32	3.00	6.90	2.3V	59	0.81	6.40	5.20	2-B
21	3.40	3.15	10.60	3.3V	59	1.21	4.80	5.80	2-B	20	2.39	4.60	11.00	1-B	60	0.79	6.00	4.75	3.3V
21	3.41	5.40	18.40	1-B	60	1.20	5.00	6.00	2.3V	21	2.24	4.75	10.60	2.3V	60	0.79	6.60	5.20	2-B
23	3.18	6.00	19.00	1.3V	60	1.20	5.00	6.00	2.3V	21	2.30	4.60	10.60	2-A	61	0.78	5.30	4.12	4.3V
23	3.08	5.00	15.40	1-B	61	1.18	4.50	5.30	3.3V	22	2.21	3.65	8.00	3.3V	61	0.78	6.40	5.00	2-B
24	2.93	6.65	10.60	2.3V	61	1.19	5.40	6.40	2-B	22	2.14	5.80	12.40	1-B	62	0.77	6.90	5.30	2.3V
24	2.94	3.60	10.60	2-A	62	1.15	4.12	4.75	3.3V	23	2.08	3.35	9.90	3.3V	62	0.76	6.80	5.20	2-B
25	2.82	5.00	14.00	1.3V	62	1.16	7.40	8.60	1-B	23	2.07	6.00	12.40	1-B	63	0.75	10.60	8.00	2.3V
25	2.85	5.40	15.40	1-B	64	1.12	5.00	5.60	2.3V	24	1.95	4.12	8.00	2.3V	63	0.76	6.60	5.00	2-B
26	2.77	6.90	19.00	1.3V	64	1.13	4.80	5.40	2-B	24	1.96	5.60	11.00	1-B	64	0.75	6.00	4.50	3.3V
26	2.79	3.80	10.60	2-A	65	1.11	4.50	5.00	3.3V	26	1.80	3.35	6.00	3.3V	64	0.75	6.40	5.20	2-B
27	2.69	3.00	8.00	3.3V	65	1.11	5.40	6.00	2-B	26	1.83	6.00	11.00	1-B	65	0.74	6.60	5.40	2.3V
27	2.65	4.00	10.60	2-A	66	1.09	4.12	4.50	3.3V	27	1.74	4.50	8.00	2.3V	65	0.74	6.80	4.12	3.3V
28	2.56	3.15	8.00	3.3V	66	1.08	4.80	5.00	2-B	27	1.77	6.20	11.00	1-B	66	0.72	6.90	5.00	3.3V
28	2.58	3.80	12.40	1-B	67	1.07	4.50	6.00	3.3V	28	1.68	4.12	6.90	2.3V	66	0.72	6.40	4.60	3-A
29	2.51	5.60	14.00	1.3V	67	1.06	6.20	6.60	2-B	28	1.68	5.60	9.40	1-B	67	0.71	6.80	4.80	2-B
29	2.48	5.00	12.40	1-B	68	1.06	5.00	5.30	3.3V	29	1.65	3.65	6.00	3.3V	68	0.70	8.00	5.60	2.3V
30	2.41	3.35	8.00	2.3V	68	1.06	6.40	6.80	2-B	29	1.62	5.80	9.40	1-B	68	0.70	7.40	5.20	2-B
30	2.38	5.20	12.40	1-B	69	1.04	5.00	5.20	3-B	30	1.58	4.12	6.50	2.3V	69	0.69	6.50	4.50	3.3V
32	2.24	4.75	10.60	2.3V	70	1.03	6.20	6.40	2-B	30	1.57	6.00	9.40	1-B	69	0.69	12.40	8.60	1-B
32	2.28	3.60	8.20	3-A	72	1.00	5.00	5.00	3.3V	31	1.54	4.50	6.90	2.3V	70	0.68	6.00	4.12	3.3V
33	2.21	3.65	8.00	3.3V	72	1.00	6.20	6.20	2-B	31	1.54	5.60	6.60	1-B	70	0.68	7.40	5.00	2-B
33	2.21	4.80	10.60	2-A	74	0.97	6.40	6.20	2-B	33	1.46	4.12	6.00	3.3V	71	0.67	11.00	7.40	2-B
34	2.13	5.00	10.60	2.3V	75	0.96	5.00	4.80	3-B	33	1.43	4.20	6.00	3-A	73	0.65	6.90	4.50	4.3V
34	2.12	5.00	10.60	2-A	77	0.93	6.00	5.60	3.3V	35	1.36	4.12	5.60	3.3V	73	0.65	7.40	4.80	3-B
35	2.08	3.35	9.90	3.3V	77	0.94	6.40	6.00	2-B	35	1.38	4.80	6.60	2-B	74	0.64	9.00	5.80	3-A
35	2.04	4.60	9.40	2-B	78	0.91	4.50	4.12	4.3V	36	1.30	5.30	6.90	2.3V	75	0.63	6.50	4.12	4.3V
36	2.02	3.00	6.00	4.3V	78	0.92	5.20	4.80	2-B	36	1.33	4.80	6.40	2-B	75	0.64	9.40	6.00	2-B
36	2.00	6.20	12.40	1-B	79	0.91	6.60	6.00	2-B	37	1.29	4.12	3.00	3.3V	76	0.62	8.00	5.00	3.3V
37	1.95	4.12	8.00	2.3V	80	0.90	5.30	4.75	3.3V	37	1.27	7.40	9.40	1-B	76	0.62	9.40	5.80	3-A
37	1.94	6.40	12.40	1-B	80	0.89	5.60	5.00	3.3V	38	1.25	4.50	5.60	3.3V	77	0.62	10.60	6.50	2.3V
38	1.88	3.00	5.60	4.3V	81	0.88	6.00	5.30	3.3V	38	1.25	4.80	6.00	2-B	78	0.61	10.60	6.50	2.3V
38	1.88	6.60	12.40	1-B	81	0.88	5.20	4.60	3-B	39	1.22	4.12	5.00	3.3V	78	0.61	8.20	5.00	4-A
39	1.82	6.80	12.40	1-B	82	0.88	6.60	5.80	2-B	39	1.21	4.80	5.80	2-B	79	0.60	11.00	6.60	2-B
40	1.79	4.50	8.00	2.3V	83	0.87	6.90	6.00	3.3V	40	1.18	4.50	5.30	3.3V	80	0.59	8.00	4.75	3.3V
40	1.77	6.20	11.00	1-B	83	0.86	5.80	5.00	3-B	40	1.20	5.00	6.00	2-B	80	0.60	12.40	7.40	2-B
41	1.75	8.00	14.00	1.3V	84	0.85	6.80	5.80	2-B	41	1.15	4.12	4.75	3.3V	81	0.58	11.00	6.20	3-A
41	1.74	5.40	9.40	2-B	85	0.85	5.60	4.75	3.3V	41	1.16	7.40	8.60	1-B	82	0.58	11.00	6.20	2-B
43	1.68	4.12	6.90	3.3V	85	0.84	6.40	5.40	3-A	42	1.13	5.30	5.00	2.3V	83	0.57	9.40	5.40	3-B
43	1.68	7.40	12.40	1-B	86	0.83	6.00	5.00	3.3V	42	1.13	4.80	5.40	2-B	84	0.56	10.60	6.00	2.3V
44	1.64	6.50	10.60	2.3V						43	1.11	4.50	5.00	3.3V	85	0.56	11.00	6.20	2-B
44	1.62	5.80	9.40	2-B						43	1.12	5.20	5.80	2-B	85	0.56	8.80	4.50	3.3V
45	1.61	5.00	8.00	2.3V						44	1.07	5.60	6.00	3.3V	85	0.56	8.60	4.80	3-B
45	1.59	5.40	8.60	2-B						44	1.09	4.60	5.00	3-B					
46	1.55	5.80	9.00	2-A						46	1.03	5.80	6.00	2-B					
47	1.51	5.30	8.00	2.3V						48	1.00	6.50	6.50	2.3V					
47	1.54	4.80	7.40	2-B						48	1.00	9.40	9.40	1-B					

**Note:** These V-belt drives are designed for normal service and are used on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for D1NA-V (3V), pitch diameters for A & B sheaves. All ratios based on P.D.  
Sheaves in shaded area represent sned up drives.



## V-belt Drives for TXT515 & SCXT515 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
13	8.46	3.00	25.00	3-3V	67	1.69	4.75	8.00	5-3V	10	7.56	3.35	25.00	2-3V	61	1.23	6.00	7.40	4-B
14	8.05	3.15	25.00	3-3V	67	1.71	4.80	8.20	5-3V	11	6.93	3.65	25.00	2-3V	63	1.20	7.10	8.50	2-5V
14	8.26	4.60	38.00	2-B	68	1.67	7.10	11.80	2-5V	13	5.74	3.35	19.00	3-3V	66	1.19	6.20	7.40	4-B
15	7.56	3.35	25.00	2-3V	68	1.68	7.40	12.40	2-B	13	6.00	3.00	18.00	4-A	65	1.16	5.60	6.50	3-B
16	6.93	3.65	25.00	2-3V	70	1.62	5.80	9.40	3-B	15	5.04	5.00	25.00	2-3V	65	1.16	7.40	8.60	4-B
17	6.52	4.60	30.00	2-B	71	1.61	5.00	8.00	4-3V	15	5.00	3.60	18.00	3-A	67	1.13	7.10	8.00	2-5V
19	6.11	3.15	19.00	2-3V	71	1.59	5.40	8.60	4-B	17	4.50	3.15	14.00	3-3V	67	1.13	11.00	12.40	2-B
19	6.00	3.00	18.00	3-A	73	1.57	6.00	9.40	3-B	17	4.41	3.40	15.00	3-A	68	1.11	9.25	10.20	2-5V
20	5.74	3.35	19.00	3-3V	74	1.54	6.90	10.60	3-3V	18	4.23	3.35	14.00	3-3V	68	1.11	5.60	6.30	4-B
20	5.63	3.20	18.00	4-A	74	1.54	5.60	8.60	3-B	18	4.17	3.60	15.00	3-A	70	1.07	5.60	6.00	5-3V
21	5.31	4.75	25.00	2-3V	76	1.49	7.40	11.00	3-B	20	3.83	5.00	19.00	2-3V	70	1.07	5.80	6.20	4-B
21	5.29	3.40	18.00	4-A	77	1.48	8.00	11.80	2-5V	20	3.68	5.00	18.40	2-B	72	1.05	9.00	10.00	2-C
22	5.26	3.65	19.00	3-3V	77	1.47	8.40	9.40	3-B	22	3.43	4.12	14.00	3-3V	73	1.03	9.00	9.25	2-5V
22	5.21	4.80	25.00	2-B	78	1.46	4.75	6.90	6-3V	22	3.41	5.40	18.40	2-B	73	1.03	5.80	6.00	4-B
24	4.66	4.12	19.00	2-3V	78	1.46	5.60	8.20	5-A	23	3.26	4.60	15.00	3-A	75	1.00	6.50	6.50	5-3V
24	4.74	3.80	18.00	3-A	80	1.42	6.60	9.40	3-B	24	3.13	4.50	14.00	3-3V	75	1.00	6.60	6.60	4-B
25	4.50	3.15	14.00	4-3V	81	1.40	11.00	15.40	2-B	24	3.08	5.00	15.40	2-B	78	0.97	6.80	6.60	4-B
25	4.50	4.00	18.00	3-A	82	1.38	5.00	6.90	5-3V	25	2.97	4.75	14.00	3-3V	79	0.95	9.75	9.25	2-5V
26	4.31	5.80	25.00	2-B	82	1.38	6.80	9.40	3-B	25	2.96	5.20	15.40	2-B	79	0.95	10.00	9.50	2-C
27	4.26	4.50	19.00	3-3V	84	1.36	9.25	12.50	2-5V	27	2.82	5.00	14.00	3-3V	80	0.94	6.90	6.50	5-3V
28	4.03	4.20	18.00	4-A	84	1.36	5.00	6.80	5-B	27	2.75	5.60	15.40	2-B	80	0.94	6.80	6.40	4-B
28	4.09	4.40	18.00	3-A	85	1.34	6.00	8.00	4-3V	28	2.66	5.30	14.00	3-3V	82	0.92	6.50	6.00	5-3V
30	3.83	5.00	19.00	2-3V	86	1.33	8.00	10.60	3-3V	28	2.66	5.80	15.40	2-B	82	0.91	9.40	8.60	3-B
30	3.75	4.80	18.00	3-A	86	1.32	9.40	12.40	2-B	29	2.57	6.00	15.40	2-B	83	0.91	6.80	6.20	4-B
31	3.61	5.30	19.00	2-3V	88	1.29	8.00	10.30	2-5V	30	2.48	6.20	15.40	2-B	85	0.89	9.40	8.00	2-5V
31	3.68	5.00	18.40	2-B	88	1.29	7.00	9.00	4-A	31	2.41	6.40	15.40	2-B	87	0.86	8.00	6.90	4-3V
32	3.54	5.20	18.40	2-B	89	1.27	7.10	9.00	2-5V	32	2.37	4.50	10.60	4-3V	87	0.86	7.40	6.40	4-B
34	3.35	4.60	15.40	3-B	89	1.27	7.40	9.40	3-B	32	2.39	4.60	11.00	3-B	89	0.85	10.90	9.25	2-5V
35	3.26	4.60	15.00	3-A	90	1.27	4.75	6.00	6-3V	33	2.29	4.80	11.00	3-B	89	0.84	6.40	5.40	5-B
36	3.13	4.50	14.00	3-3V	90	1.26	6.80	8.60	3-B	34	2.24	4.75	10.60	3-3V	91	0.83	9.00	7.50	2-5V
36	3.12	4.80	15.00	3-A	93	1.25	5.60	7.00	5-A	34	2.20	5.00	11.00	3-B	91	0.82	6.80	5.60	5-B
37	3.08	5.00	15.40	2-B	93	1.25	6.00	5.00	5-3V	36	2.07	6.00	12.40	2-B	94	0.81	15.40	12.40	2-B
39	2.94	6.50	19.00	2-3V	93	1.22	5.40	6.60	4-B	37	2.01	5.30	10.60	3-3V	96	0.78	11.80	9.25	2-5V
39	2.88	5.20	15.00	3-A	94	1.21	8.50	10.30	2-5V	37	2.04	4.60	9.40	3-B	96	0.78	11.00	8.60	3-5V
40	2.82	5.00	14.00	3-3V	94	1.21	5.60	6.80	5-B	39	1.94	6.40	12.40	2-B	98	0.77	9.25	7.10	3-5V
40	2.85	4.40	15.40	3-B	95	1.20	7.50	9.00	2-5V	40	1.90	5.60	10.60	4-3V	98	0.77	8.60	6.60	4-B
42	2.70	4.60	12.40	4-B	95	1.19	6.20	7.40	4-B	40	1.90	5.80	11.00	3-B	100	0.75	10.60	8.00	4-3V
43	2.66	5.30	14.00	3-3V	97	1.17	9.40	11.00	3-B	41	1.83	6.00	11.00	3-B	100	0.76	7.40	5.60	5-B
43	2.66	5.80	15.40	3-B	99	1.15	6.00	6.90	5-3V	42	1.77	6.00	10.60	4-3V	103	0.73	10.90	8.00	2-5V
44	2.58	4.80	12.40	3-B	99	1.14	5.60	6.40	5-B	42	1.77	6.20	11.00	3-B	103	0.73	7.40	5.40	5-B
46	2.48	6.20	15.40	2-B	100	1.13	5.30	6.00	6-3V	43	1.75	8.00	14.00	3-3V	105	0.72	11.80	8.50	2-5V
47	2.41	6.40	15.40	2-B	100	1.13	6.00	6.80	5-B	43	1.74	5.40	9.40	4-B	105	0.72	8.60	6.20	4-B
48	2.37	5.50	10.60	4-3V	102	1.11	9.25	10.30	2-5V	45	1.69	4.75	8.00	5-3V	106	0.71	12.00	8.50	2-C
48	2.38	5.20	12.40	3-B	102	1.11	5.40	6.00	5-B	45	1.68	7.40	12.40	2-B	108	0.70	8.00	5.60	6-3V
49	2.33	6.60	15.40	2-B	103	1.11	9.50	10.50	2-C	47	1.61	5.00	8.00	5-3V	108	0.70	8.60	6.00	5-B
51	2.24	4.75	10.60	4-3V	104	1.09	8.50	9.25	2-5V	47	1.62	6.80	11.00	3-B	110	0.69	10.90	7.50	2-5V
51	2.21	5.60	12.40	3-B	104	1.10	6.20	6.80	4-B	48	1.58	7.50	11.80	2-5V	110	0.68	12.00	8.20	5-A
52	2.20	5.00	11.00	3-B	105	1.08	6.00	6.50	5-3V	48	1.57	6.00	9.40	3-B	111	0.68	12.50	8.50	2-5V
53	2.13	5.00	10.60	3-3V	105	1.08	12.00	13.00	2-C	50	1.51	5.30	8.00	4-3V	111	0.68	9.40	6.40	4-B
53	2.14	5.80	12.40	3-B	107	1.06	6.50	6.90	4-3V	50	1.52	6.20	9.40	3-B	113	0.67	18.00	12.00	3-A
54	2.12	5.20	11.00	3-B	107	1.06	6.20	6.60	4-B	52	1.46	4.75	6.90	5-3V	114	0.66	14.00	9.25	2-5V
55	2.07	5.80	12.00	3-A	110	1.03	6.00	6.40	4-B	52	1.44	8.60	12.40	2-B	114	0.66	9.40	6.20	4-B
57	2.01	5.30	10.60	3-3V	111	1.03	9.00	9.25	2-5V	53	1.43	5.60	8.00	4-3V	115	0.65	13.00	8.50	2-C
57	2.00	6.20	12.40	2-B	117	0.97	9.25	9.00	2-5V	53	1.43	6.00	8.60	3-B	116	0.65	10.60	6.90	4-3V
58	1.96	5.60	11.00	3-B	117	0.97	6.40	6.20	4-B	54	1.38	5.00	8.60	5-3V	116	0.65	8.60	5.60	5-B
59	1.94	6.40	12.40	3-B	119	0.95	10.50	10.00	2-C	54	1.39	6.20	8.60	3-B	118	0.64	12.50	8.00	2-5V
60	1.90	5.60	10.60	4-3V	120	0.94	9.00	8.50	2-5V	55	1.37	4.75	6.50	5-3V	118	0.64	9.40	6.00	4-B
60	1.90	5.20	11.00	3-B	122	0.93	6.00	5.60	5-3V	55	1.38	4.80	6.60	4-B	119	0.63	11.80	7.50	2-5V
62	1.83	6.00	11.00	3-B	122	0.93	6.00	5.60	5-3V	57	1.32	5.60	7.40	3-B	121	0.62	9.40	6.50	4-3V
63	1.80	10.60	19.00	2-3V	122	0.93	6.00	5.60	5-B	57	1.32	5.60	7.40	3-B	122	0.62	9.40	6.50	4-3V
63	1.79	8.00	8.60	4-B	123	0.92	6.50	6.00	5-3V	58	1.30	5.30	6.90	5-3V	123	0.61	10.60	6.50	4-3V
65	1.75	8.00	14.00	2-3V	123	0.92	13.00	12.00	2-C	58	1.30	6.60	8.60	4-B	123	0.61	15.40	9.40	3-B
65	1.74	5.40	9.40	4-B	124	0.92	9.25	8.50	2-5V	60	1.26	6.80	8.60	3-B	124	0.61	16.00	9.75	2-5V
66	1.72	6.40	11.00	3-B	124	0.91	9.40	8.60	3-B	61	1.23	5.30	6.50	5-3V	124	0.61	14.00	8.50	2-C

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V & 5V); pitch diameters for A, B & C sheaves. All ratios based on P.D. Sheaves in shaded area represent speed up drives.

# V-belt Drives for TXT525 & SCXT525 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	6.89	2.80	19.00	2-3V	48	1.43	6.00	8.60	2-B	10	4.73	3.00	14.00	2-3V	47	0.97	5.80	5.80	3-B
11	6.42	3.00	19.00	2-3V	49	1.38	5.00	6.90	3-3V	10	4.69	3.20	15.00	2-A	48	0.94	6.90	6.50	3-3V
11	6.00	3.00	18.00	2-A	49	1.39	6.20	8.60	2-B	11	4.26	4.50	19.00	1-3V	48	0.94	6.40	6.00	3-B
12	5.74	3.35	19.00	2-3V	50	1.37	4.75	5.60	4-3V	11	4.00	4.60	18.40	1-B	49	0.92	6.50	6.00	3-3V
12	5.63	3.20	18.00	3-A	50	1.38	4.80	6.60	3-B	12	3.88	3.65	14.00	3-3V	49	0.93	6.00	5.60	3-B
13	5.26	3.65	19.00	2-3V	51	1.34	4.50	6.00	4-3V	12	3.75	4.00	15.00	3-A	50	0.90	6.00	5.40	3-B
13	5.29	3.40	18.00	3-A	51	1.33	4.80	6.40	3-B	13	3.40	3.15	10.60	3-3V	51	0.89	8.00	7.10	2-5V
14	4.73	3.40	14.00	3-3V	52	1.30	5.30	6.90	3-3V	13	3.53	3.40	12.00	3-A	51	0.88	6.80	6.00	3-B
14	5.00	3.00	15.00	3-A	52	1.32	5.00	6.60	3-B	14	3.20	3.35	10.60	3-3V	52	0.87	6.90	6.00	3-3V
15	4.50	3.15	14.00	3-3V	53	1.30	5.00	6.60	3-3V	14	3.33	3.60	12.00	3-A	52	0.87	6.20	5.40	3-B
15	4.69	3.20	15.00	3-A	53	1.29	4.80	6.20	3-B	15	3.93	3.65	10.60	3-3V	53	0.86	8.00	6.90	3-3V
16	4.23	3.35	14.00	2-3V	54	1.27	4.75	6.00	4-3V	15	3.12	3.40	10.60	3-A	53	0.85	6.80	6.00	3-B
16	4.41	3.40	15.00	3-A	54	1.26	6.80	8.60	2-B	16	2.82	5.00	14.00	2-3V	54	0.83	8.50	7.10	2-5V
17	4.03	4.75	19.00	1-3V	55	1.23	5.60	6.90	3-3V	16	2.79	3.80	10.60	3-A	54	0.83	6.40	5.40	3-B
17	3.95	3.80	15.00	2-3V	55	1.25	4.80	6.00	3-B	17	2.69	3.00	8.00	4-3V	55	0.82	6.60	5.40	3-B
19	3.58	3.00	10.60	3-A	57	1.20	5.00	6.00	3-3V	17	2.66	5.80	15.40	1-B	55	0.82	6.80	5.40	3-B
19	3.53	3.00	10.60	3-A	58	1.19	5.40	6.40	3-B	18	2.59	4.12	10.60	2-3V	57	0.79	6.80	5.40	3-B
20	3.40	3.15	10.60	4-3V	58	1.19	5.40	6.40	3-B	18	2.57	6.00	15.40	1-B	58	0.79	9.00	7.10	2-5V
20	3.35	4.60	15.00	2-B	59	1.15	6.00	6.90	3-3V	19	2.41	3.35	8.00	3-3V	58	0.79	9.00	7.40	2-B
21	3.20	3.35	10.60	3-3V	59	1.16	7.40	8.60	2-B	19	2.41	4.40	10.60	2-A	59	0.77	9.25	7.10	2-5V
21	3.33	3.60	12.00	3-A	60	1.13	5.30	6.00	4-3V	20	2.24	4.75	10.60	3-3V	59	0.77	8.60	6.80	3-B
22	3.13	4.50	14.00	2-3V	60	1.14	5.60	6.40	3-B	20	2.29	4.80	11.00	2-B	60	0.75	10.60	8.00	3-3V
22	3.16	3.80	12.00	3-A	61	1.13	7.10	8.00	2-5V	22	2.04	6.90	14.00	2-3V	60	0.76	12.40	9.40	4-3V
23	2.93	3.65	10.60	3-3V	61	1.13	4.80	5.40	4-B	22	2.04	5.40	11.00	2-B	61	0.75	8.60	6.40	3-B
23	2.94	3.60	10.60	3-A	62	1.11	5.60	6.20	3-B	23	1.95	4.12	8.00	3-3V	61	0.74	10.90	8.00	2-5V
24	2.82	5.00	14.00	2-3V	63	1.08	6.00	6.50	3-3V	23	1.96	4.80	9.40	2-B	62	0.73	10.90	8.00	2-5V
24	2.87	6.40	18.40	1-B	63	1.09	8.60	9.40	2-B	24	1.90	5.60	10.60	2-3V	62	0.73	7.40	5.40	4-B
25	2.69	2.00	8.00	4-3V	64	1.06	6.50	6.90	3-3V	24	1.88	5.00	9.40	2-B	63	0.73	9.75	7.10	2-5V
25	2.70	4.60	12.40	2-B	64	1.07	5.80	6.20	3-B	25	1.79	4.50	8.00	3-3V	63	0.72	8.60	6.20	3-B
26	2.59	4.12	10.60	2-3V	65	1.06	7.10	7.50	2-5V	25	1.79	4.80	8.60	2-B	64	0.71	8.20	5.80	4-A
26	2.65	4.00	10.60	3-A	65	1.06	8.50	9.00	2-C	26	1.77	6.00	10.60	2-3V	65	0.70	8.60	6.00	3-B
27	2.51	5.60	14.00	2-3V	66	1.03	5.80	6.00	3-B	26	1.72	5.00	8.60	2-B	66	0.69	10.30	7.10	2-5V
27	2.50	4.80	12.00	3-A	68	1.00	6.50	6.50	3-3V	27	1.69	4.75	8.00	3-3V	66	0.69	11.80	8.00	4-A
28	2.48	5.00	12.40	2-B	68	1.00	5.80	5.80	3-B	27	1.68	5.60	9.40	2-B	67	0.68	11.80	7.40	2-5V
29	2.37	4.50	10.60	3-3V	71	0.97	6.00	5.80	3-B	28	1.61	5.00	8.00	3-3V	67	0.67	9.00	6.00	4-A
29	2.38	5.20	12.40	2-B	72	0.95	7.50	7.10	2-5V	28	1.62	5.80	9.40	2-B	68	0.67	9.00	6.00	4-A
31	2.20	5.00	11.00	2-B	72	0.94	9.00	8.50	2-3V	29	1.54	4.50	6.90	4-3V	69	0.66	9.40	6.20	3-B
32	2.13	5.00	10.60	2-3V	74	0.92	6.50	6.00	3-3V	29	1.57	6.00	9.40	2-B	70	0.65	10.60	6.90	3-3V
32	2.12	5.20	11.00	2-B	74	0.93	5.80	5.40	4-B	30	1.51	5.30	8.00	3-3V	70	0.65	8.60	5.60	3-B
33	2.07	5.80	12.00	2-A	75	0.91	6.60	6.00	3-B	30	1.54	5.60	8.60	2-B	72	0.63	11.80	7.50	2-5V
34	2.01	5.30	10.60	2-3V	76	0.90	6.00	5.40	3-B	31	1.46	4.75	6.90	3-3V	72	0.63	8.60	5.40	4-B
34	2.04	5.40	11.00	2-B	77	0.89	6.00	7.10	2-5V	31	1.48	5.80	8.60	2-B	73	0.62	11.80	6.80	3-B
35	1.95	4.12	8.00	3-3V	77	0.89	7.40	6.60	3-B	32	1.43	5.60	8.00	3-3V	74	0.61	10.60	6.50	3-3V
35	1.96	4.80	9.40	2-B	78	0.88	8.50	7.50	2-5V	32	1.43	4.60	6.60	3-B	74	0.62	9.40	5.80	3-B
36	1.90	5.60	10.60	2-3V	78	0.88	6.40	5.60	4-B	33	1.37	4.75	6.50	3-3V	75	0.60	13.20	8.00	2-5V
36	1.88	5.00	9.40	2-B	79	0.86	8.00	6.90	3-3V	33	1.39	4.60	6.40	3-B	75	0.60	10.60	6.40	4-A
37	1.83	5.80	10.60	2-A	79	0.86	8.00	6.40	3-B	34	1.34	4.50	6.00	4-3V	76	0.60	11.80	7.10	2-5V
38	1.79	4.50	8.00	3-3V	80	0.85	11.00	9.40	2-B	34	1.32	5.60	7.40	2-B	76	0.60	12.40	7.40	2-B
38	1.79	4.80	8.60	2-B	...	...	...	...	2-5V	36	1.27	4.75	6.00	3-3V	77	0.59	18.00	10.60	3-A
39	1.75	8.00	14.00	1-3V	...	...	...	...	4-B	36	1.26	4.60	5.80	3-B	78	0.58	11.00	6.40	3-B
39	1.74	5.40	9.40	2-B	...	...	...	...	2-5V	37	1.23	6.50	8.00	2-3V	79	0.57	8.40	5.40	4-B
40	1.69	4.75	8.00	3-3V	...	...	...	...	3-B	37	1.22	4.60	5.60	3-B	80	0.56	10.60	6.00	4-3V
40	1.72	5.00	8.60	2-B	...	...	...	...	2-5V	38	1.20	5.00	6.00	3-3V	80	0.57	10.60	6.00	5-A
41	1.68	4.12	6.90	3-3V	...	...	...	...	4-B	38	1.21	4.80	5.80	3-B	...	...	...	...	...
41	1.68	7.40	12.40	1-B	...	...	...	...	3-3V	39	1.16	6.90	8.00	2-3V	...	...	...	...	...
42	1.64	6.50	10.60	2-3V	...	...	...	...	2-5V	40	1.13	9.40	11.00	1-B	...	...	...	...	...
42	1.62	6.80	11.00	2-B	...	...	...	...	2-C	40	1.13	5.30	6.00	3-3V	...	...	...	...	...
44	1.54	4.50	6.90	4-3V	...	...	...	...	4-B	40	1.13	4.80	5.40	3-B	...	...	...	...	...
44	1.57	6.00	9.40	2-B	...	...	...	...	2-5V	42	1.07	5.60	6.00	4-3V	...	...	...	...	...
45	1.51	5.30	8.00	3-3V	...	...	...	...	2-5V	42	1.07	5.80	6.20	3-B	...	...	...	...	...
45	1.52	6.20	9.40	2-B	...	...	...	...	3-B	43	1.06	6.50	6.90	3-3V	...	...	...	...	...
46	1.48	5.00	7.40	3-B	...	...	...	...	2-5V	43	1.07	6.00	6.40	3-B	...	...	...	...	...
47	1.45	4.50	6.90	4-3V	...	...	...	...	2-B	44	1.03	5.80	6.00	3-B	...	...	...	...	...
47	1.47	6.40	9.40	2-B	...	...	...	...	2-5V	45	1.00	5.00	6.50	3-3V	...	...	...	...	...
48	1.43	5.60	8.00	3-3V	...	...	...	...	3-B	45	1.00	5.80	5.80	3-B	...	...	...	...	...

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V & 5V); pitch diameters for A, B & C sheaves. All ratios based on P.D. Sheaves in shaded area represent speed up drives.



# V-belt Drives for TXT615 & SCXT615 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven						
10	11.34	3.00	33.50	3-3V	68	1.68	7.50	12.50	2-5V	10	7.56	3.35	25.00	3-3V	72	1.05	9.25	9.75	2-5V
11	10.79	3.15	33.50	3-3V	68	1.67	7.60	11.00	4-B	10	7.92	4.80	38.00	2-8	74	1.05	10.00	10.50	2-C
12	9.29	3.65	33.50	3-3V	69	1.66	8.00	13.20	2-5V	11	7.04	5.40	38.00	2-8	74	1.03	9.00	9.25	2-5V
13	8.46	3.00	25.00	4-3V	69	1.66	6.40	10.60	6-A	12	6.13	4.12	25.00	3-3V	78	0.97	9.25	9.00	2-5V
15	7.56	3.35	25.00	3-3V	71	1.62	6.80	11.00	4-B	12	6.52	4.60	30.00	3-8	79	0.95	10.50	10.00	2-C
15	7.60	5.00	38.00	2-8	72	1.58	7.50	11.80	2-5V	13	5.61	4.50	25.00	3-3V	80	0.94	6.90	6.50	6-3V
16	7.31	5.20	38.00	2-8	72	1.59	5.40	8.60	5-B	13	6.00	5.00	30.00	2-8	80	0.94	6.80	6.40	5-B
17	6.79	5.60	38.00	2-8	73	1.57	6.00	12.50	2-5V	14	5.31	4.75	25.00	3-3V	82	0.92	11.80	10.90	2-5V
18	6.25	4.80	30.00	3-8	73	1.57	6.00	9.40	4-B	14	5.43	4.60	25.00	3-8	82	0.92	7.40	6.80	6-B
20	5.61	4.50	25.00	3-3V	74	1.54	6.90	10.60	4-3V	15	5.04	5.00	25.00	2-3V	84	0.90	10.30	9.25	3-5V
20	5.77	5.20	30.00	2-8	74	1.54	5.60	8.60	5-B	15	5.00	5.00	25.00	2-8	84	0.90	10.00	9.00	3-C
21	5.43	4.60	25.00	3-8	75	1.51	5.30	8.00	6-3V	17	4.50	5.60	25.00	3-3V	85	0.89	9.00	8.00	3-5V
22	5.21	4.80	25.00	3-8	75	1.52	6.20	9.40	4-B	17	4.35	4.60	20.00	3-8	85	0.89	12.40	11.00	4-B
23	5.04	5.00	25.00	2-3V	76	1.50	12.00	18.00	3-A	19	4.03	4.75	19.00	3-3V	86	0.88	8.50	7.50	4-C
23	5.00	5.00	25.00	2-8	77	1.48	8.00	11.80	2-5V	19	4.00	4.60	18.00	3-8	86	0.88	8.50	7.50	4-C
24	4.75	5.30	25.00	2-3V	77	1.49	7.40	11.00	3-8	20	3.83	5.00	19.00	3-3V	87	0.87	11.80	10.30	2-5V
24	4.74	3.80	18.00	4-A	79	1.44	9.75	14.00	2-5V	20	3.83	4.80	18.00	4-3V	87	0.86	7.40	6.40	6-B
25	4.50	5.60	25.00	3-3V	79	1.44	8.60	12.40	3-8	23	3.35	4.60	15.40	3-8	89	0.85	10.90	9.25	3-5V
25	4.63	5.40	25.00	3-8	80	1.43	5.60	8.00	5-3V	24	3.13	4.50	14.00	4-3V	89	0.85	11.00	9.40	4-B
26	4.35	4.60	20.00	4-8	80	1.43	6.00	8.60	4-A	24	3.21	4.80	15.40	3-8	90	0.84	14.00	11.80	2-5V
26	4.26	4.50	19.00	4-3V	81	1.42	10.60	15.00	5-A	26	2.94	6.50	19.00	3-3V	90	0.84	14.00	15.40	3-8
27	4.17	4.80	20.00	4-8	82	1.39	8.50	11.40	2-5V	26	2.87	6.40	18.40	3-8	92	0.82	11.80	9.75	2-5V
29	4.00	4.60	18.40	4-8	82	1.40	11.00	15.00	4-3V	27	2.82	5.00	14.00	4-3V	92	0.82	8.50	7.00	4-C
30	3.83	5.00	19.00	3-3V	83	1.38	7.10	9.75	3-5V	27	2.79	6.60	18.40	3-8	94	0.81	9.25	7.50	3-5V
30	3.75	4.80	18.00	4-A	83	1.38	6.80	9.40	5-B	29	2.57	6.00	15.40	3-8	94	0.81	15.40	12.40	3-8
31	3.64	6.90	25.00	2-3V	85	1.34	6.00	8.00	6-3V	30	2.51	5.60	14.00	4-3V	95	0.80	10.00	8.00	3-C
31	3.68	5.00	18.40	3-8	85	1.34	6.40	8.60	5-B	30	2.48	6.20	15.40	3-8	97	0.78	11.80	9.25	2-5V
32	3.61	5.30	19.00	3-3V	86	1.33	8.00	10.60	4-3V	31	2.48	5.00	12.40	4-8	97	0.78	11.00	8.60	4-B
32	3.54	5.20	18.40	3-8	86	1.33	9.00	12.00	5-A	32	2.34	6.00	14.00	4-3V	99	0.77	9.75	7.50	3-5V
33	3.41	5.60	19.00	3-3V	87	1.31	9.00	11.80	2-5V	32	2.38	5.20	12.40	4-8	99	0.77	10.50	8.00	3-5V
33	3.41	5.40	18.40	3-8	87	1.32	9.40	12.40	4-8	34	2.24	4.75	10.60	5-3V	101	0.75	8.00	6.00	8-3V
34	3.35	5.60	15.40	4-8	88	1.30	7.50	9.75	3-5V	34	2.20	5.00	11.00	4-8	101	0.75	14.00	10.50	2-C
35	3.29	5.60	18.40	3-8	88	1.30	10.00	13.00	2-C	35	2.13	5.00	10.60	4-3V	102	0.74	8.60	6.40	6-B
37	3.07	6.00	18.40	3-8	89	1.28	9.25	11.80	2-5V	35	2.14	5.80	12.40	3-8	104	0.73	9.75	7.10	3-5V
38	2.97	4.75	14.00	5-3V	89	1.28	8.60	11.00	4-8	37	2.04	6.90	14.00	4-3V	104	0.73	11.00	8.00	3-C
38	2.97	6.20	18.40	3-8	91	1.25	12.00	15.00	4-A	37	2.07	6.00	12.40	4-8	106	0.71	15.40	11.00	4-B
39	2.94	6.50	19.00	3-3V	92	1.24	7.50	9.25	3-5V	38	2.01	5.30	10.60	5-3V	107	0.71	21.20	15.00	2-5V
39	2.96	5.20	15.40	4-8	92	1.24	12.40	15.40	3-8	38	2.00	6.20	12.40	4-8	107	0.71	15.00	10.60	6-A
40	2.82	5.00	14.00	4-3V	93	1.23	6.50	8.00	6-3V	39	1.96	5.60	11.00	4-8	109	0.69	14.00	9.75	3-5V
40	2.87	6.40	18.40	3-8	93	1.23	6.00	7.40	6-B	41	1.82	6.80	12.40	3-8	109	0.69	12.40	8.60	5-B
41	2.79	6.90	19.00	3-3V	94	1.21	9.00	10.90	2-5V	42	1.80	10.60	19.00	2-3V	111	0.68	15.00	10.30	2-5V
41	2.79	6.80	18.40	3-8	94	1.21	7.00	8.50	4-C	42	1.79	8.60	15.40	3-8	111	0.68	11.00	7.50	4-A
42	2.71	6.80	18.40	3-8	95	1.20	7.10	8.50	3-5V	44	1.74	9.25	16.00	2-5V	113	0.67	18.00	12.00	5-A
44	2.57	6.00	15.40	3-8	95	1.20	10.00	12.00	2-C	44	1.72	6.40	11.00	4-8	116	0.65	13.00	8.50	3-C
45	2.51	5.60	14.00	4-3V	96	1.19	11.80	14.00	2-5V	45	1.67	7.10	11.80	2-5V	116	0.64	16.00	10.30	2-5V
45	2.53	5.90	24.00	2-C	96	1.19	8.00	9.50	3-C	45	1.68	5.60	9.40	4-8	118	0.64	14.00	9.00	3-C
46	2.49	7.40	18.40	3-8	98	1.16	6.90	8.00	5-3V	47	1.62	6.80	11.00	4-8	119	0.64	12.50	8.00	3-5V
47	2.41	6.40	15.40	4-8	98	1.16	7.40	8.60	4-8	49	1.54	6.90	10.60	5-3V	119	0.64	11.00	7.00	5-C
48	2.38	8.00	19.00	3-3V	99	1.15	6.00	6.90	6-3V	49	1.53	8.50	13.00	2-C	120	0.63	11.80	7.50	3-5V
48	2.38	5.20	12.40	5-8	99	1.15	6.40	7.40	5-B	50	1.52	9.25	14.00	2-5V	121	0.63	12.00	7.50	4-C
49	2.34	6.00	14.00	4-3V	100	1.15	9.00	10.30	2-5V	50	1.50	7.00	10.50	3-C	122	0.62	21.20	13.20	2-5V
49	2.33	6.60	15.40	3-8	100	1.14	7.10	10.00	3-5V	52	1.46	7.10	10.30	3-5V	122	0.62	11.00	6.80	6-B
51	2.24	7.50	10.60	6-3V	101	1.13													

# V-belt Drives for TXT625 & SCXT625 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	6.93	3.65	25.00	2-3V	51	1.37	4.75	6.50	6-3V	10	4.50	3.15	14.00	3-3V	48	0.97	6.80	6.60	4-B
11	6.11	3.15	19.00	2-3V	51	1.37	5.40	7.40	4-B	10	4.41	3.40	15.00	3-A	49	0.94	6.90	6.50	5-3V
11	6.52	4.60	30.00	2-3V	52	1.34	6.00	8.00	4-3V	11	4.23	3.35	14.00	3-3V	49	0.94	6.80	6.40	4-B
12	5.74	3.35	19.00	3-B	52	1.34	6.40	8.60	3-B	11	4.17	3.60	15.00	3-A	50	0.92	6.60	6.00	5-3V
12	5.63	3.20	18.00	4-A	54	1.29	8.00	10.30	2-5V	12	3.83	5.00	19.00	2-3V	50	0.91	9.40	8.60	3-B
14	5.04	5.00	25.00	2-3V	54	1.28	5.00	6.40	5-B	12	3.91	4.60	18.00	3-A	51	0.90	10.30	9.25	2-5V
14	5.00	3.60	18.00	4-A	55	1.27	7.10	9.00	2-3V	13	3.63	4.75	16.00	3-3V	51	0.91	6.80	6.20	4-B
15	4.66	4.12	19.00	2-3V	55	1.26	6.80	8.60	3-B	13	3.68	5.00	18.40	2-B	53	0.87	6.90	6.00	5-3V
15	4.74	3.80	18.00	3-A	56	1.23	6.50	8.00	4-3V	14	3.41	5.60	19.00	2-3V	53	0.86	7.40	6.40	4-B
16	4.23	3.35	14.00	3-3V	56	1.23	6.00	7.40	4-B	14	3.26	4.60	15.00	3-A	54	0.86	8.00	6.90	4-3V
16	4.29	4.20	18.00	3-A	57	1.23	5.30	6.50	5-3V	16	2.82	5.00	14.00	2-3V	54	0.86	8.60	7.40	3-B
17	4.03	4.75	19.00	2-3V	57	1.22	5.40	6.60	4-B	16	2.96	5.20	15.40	2-B	55	0.83	8.50	7.10	3-5V
17	4.09	4.40	18.00	3-A	58	1.20	7.50	9.00	2-5V	17	2.66	5.30	14.00	3-3V	55	0.84	7.40	6.20	4-B
18	3.83	5.00	19.00	2-3V	58	1.19	6.20	7.40	4-B	17	2.66	5.80	15.40	2-B	56	0.83	9.00	7.50	2-5V
18	3.91	4.60	18.00	3-A	60	1.16	5.60	6.50	5-3V	18	2.51	5.60	14.00	3-3V	56	0.82	11.00	9.00	2-C
19	3.61	5.30	19.00	2-3V	60	1.16	7.40	8.60	3-B	18	2.57	6.00	15.40	2-B	57	0.81	8.00	6.50	4-3V
19	3.68	5.00	18.40	2-B	61	1.14	7.50	8.50	2-5V	19	2.37	4.50	10.60	4-3V	57	0.81	7.40	6.00	4-B
21	3.26	4.60	15.00	3-A	61	1.14	5.60	6.40	5-B	19	2.39	4.60	11.00	3-B	58	0.79	8.60	6.80	4-B
22	3.13	4.50	14.00	3-3V	62	1.13	8.00	9.00	2-5V	20	2.34	6.00	14.00	3-3V	59	0.78	10.90	8.50	2-5V
22	3.12	4.80	15.00	3-A	62	1.13	11.00	12.40	2-B	20	2.29	4.80	11.00	3-B	59	0.78	11.00	8.60	3-B
23	2.97	4.75	14.00	3-3V	63	1.10	6.20	6.80	4-B	21	2.24	4.75	10.60	3-3V	60	0.77	10.30	8.00	2-5V
23	3.08	5.00	15.40	2-B	64	1.08	6.00	6.50	5-3V	21	2.20	5.00	11.00	3-B	60	0.77	8.60	6.60	4-B
24	2.94	6.50	19.00	2-3V	64	1.09	8.60	9.40	3-B	22	2.13	5.00	10.60	3-3V	62	0.75	8.00	6.00	5-3V
24	2.96	5.20	15.40	2-B	65	1.07	7.50	8.00	2-5V	22	2.14	5.80	12.40	2-B	62	0.74	8.60	6.40	4-B
25	2.82	5.00	14.00	2-3V	65	1.06	6.20	6.60	4-B	23	2.01	5.30	10.60	3-3V	63	0.73	10.90	8.00	2-5V
25	2.75	5.60	15.40	2-B	66	1.06	6.50	6.90	4-3V	23	2.01	6.00	12.40	2-B	63	0.73	8.20	6.00	6-A
26	2.66	5.30	14.00	3-3V	67	1.03	6.20	6.40	4-B	25	1.83	6.00	11.00	2-B	64	0.73	10.30	7.50	2-5V
26	2.66	5.80	15.40	3-B	68	1.03	9.00	9.25	2-5V	26	1.77	6.00	10.60	4-3V	64	0.72	8.60	6.20	4-B
27	2.58	4.80	12.40	3-B	68	1.03	6.40	6.60	4-B	26	1.77	6.20	11.00	3-B	65	0.71	15.40	11.00	3-B
28	2.51	5.60	14.00	3-3V	70	1.00	6.00	6.00	5-3V	27	1.69	4.75	8.00	5-3V	66	0.70	9.40	6.60	4-B
28	2.48	6.20	15.40	2-B	70	1.00	11.00	11.00	2-B	27	1.72	6.40	11.00	3-B	66	0.70	10.90	8.50	2-5V
30	2.34	6.00	14.00	3-3V	72	0.97	9.25	9.00	2-5V	28	1.64	6.50	10.60	3-3V	67	0.69	12.40	8.60	3-B
30	2.29	4.80	11.00	3-B	72	0.97	6.40	6.20	4-B	28	1.68	7.40	12.40	2-B	67	0.69	11.80	8.00	2-5V
31	2.24	4.75	10.60	4-3V	73	0.95	9.75	9.25	2-5V	29	1.61	5.00	8.00	5-3V	68	0.68	11.80	8.00	3-B
31	2.26	6.80	15.40	2-B	73	0.95	10.00	9.50	2-C	29	1.57	6.00	9.40	3-B	68	0.68	9.40	6.40	4-B
32	2.16	6.50	14.00	2-3V	74	0.94	6.90	6.50	4-3V	30	1.51	5.30	8.00	4-3V	69	0.67	11.00	7.40	3-B
32	2.20	5.00	11.00	3-B	74	0.94	6.40	6.00	4-B	30	1.54	5.60	8.60	3-B	71	0.65	10.60	6.90	4-3V
33	2.13	5.00	10.60	3-3V	75	0.92	6.50	6.00	5-3V	31	1.48	8.00	11.80	2-5V	71	0.65	13.00	8.50	2-C
33	2.12	5.20	11.00	3-B	76	0.92	9.25	8.50	2-5V	31	1.49	7.40	11.00	2-B	72	0.64	12.50	8.00	2-5V
34	2.04	6.90	14.00	2-3V	76	0.91	6.80	6.20	4-B	32	1.43	5.60	8.00	4-3V	72	0.64	9.40	6.00	4-B
34	2.04	5.40	11.00	3-B	77	0.91	6.60	6.00	4-B	32	1.43	6.00	8.60	3-B	73	0.63	11.80	7.00	2-5V
36	1.96	4.80	9.40	4-B	78	0.89	9.00	8.00	2-5V	34	1.37	4.75	6.50	5-3V	73	0.64	20.00	12.40	3-C
37	1.90	5.60	10.60	4-3V	78	0.89	7.40	6.60	4-B	34	1.38	4.80	6.60	4-B	74	0.62	15.00	9.25	2-5V
37	1.90	5.80	11.00	3-B	79	0.89	8.00	7.10	2-5V	35	1.30	5.30	6.90	4-3V	75	0.61	11.00	6.80	4-B
38	1.83	6.00	11.00	3-B	79	0.88	6.80	6.00	4-B	35	1.32	5.60	7.40	3-B	75	0.62	11.00	8.50	2-5V
39	1.77	6.20	11.00	3-B	80	0.87	6.90	6.00	4-3V	36	1.27	7.10	9.00	2-5V	76	0.60	14.00	8.00	2-5V
39	1.77	6.20	11.00	3-B	80	0.88	8.00	7.00	3-C	36	1.26	6.80	8.60	3-B	76	0.61	15.40	9.40	3-B
40	1.75	8.00	14.00	2-3V	...	...	...	...	5-3V	37	1.23	6.50	8.00	4-3V	77	0.60	11.80	7.10	2-5V
40	1.72	5.00	8.60	4-B	...	...	...	...	3-B	37	1.23	6.00	7.40	4-B	77	0.60	12.40	7.40	3-B
42	1.67	7.10	11.80	2-5V	...	...	...	...	2-5V	38	1.23	5.30	6.50	5-3V	78	0.59	16.00	10.00	4-A
42	1.68	7.40	12.40	2-B	...	...	...	...	5-A	38	1.21	5.60	6.80	4-B	79	0.58	11.00	6.40	4-B
43	1.61	5.00	8.00	4-3V	...	...	...	...	2-5V	39	1.18	9.25	10.90	2-5V	...	...	...	...	4-3V
43	1.62	5.80	9.40	3-B	...	...	...	...	3-C	39	1.17	9.40	11.00	2-B	...	...	...	...	3-C
44	1.58	7.50	11.80	2-5V	...	...	...	...	3-5V	40	1.16	5.60	6.50	5-3V	...	...	...	...	5-3V
44	1.57	6.00																	



# V-belt Drives for TXT715 & SCXT715 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	11.34	3.00	33.50	4-3V	63	1.82	6.80	12.40	5-B	10	7.52	4.50	33.50	3-3V	59	1.29	8.50	10.90	3-5V
10	11.34	3.00	33.50	4-3V	65	1.75	8.00	14.00	5-3V	10	7.60	5.00	38.00	2-B	59	1.30	15.40	20.00	3-B
14	8.22	4.12	33.50	3-3V	65	1.78	9.00	16.00	3-C	12	6.37	5.30	33.50	3-3V	61	1.24	12.40	15.40	3-B
14	8.26	4.60	38.00	3-B	67	1.71	7.00	12.00	5-C	12	6.25	4.80	30.00	3-B	62	1.24	7.50	9.25	4-5V
16	7.31	5.20	38.00	2-B	68	1.70	12.50	21.20	2-5V	13	6.03	5.60	33.50	3-3V	62	1.22	9.00	11.00	3-C
17	6.76	5.00	33.50	3-3V	68	1.68	9.50	16.00	3-C	13	6.00	5.00	30.00	3-B	63	1.21	10.90	13.20	2-5V
17	6.79	5.60	38.00	3-B	69	1.66	8.00	13.20	3-5V	15	5.04	5.00	25.00	3-3V	63	1.20	7.50	9.00	4-C
18	6.37	5.30	33.50	3-3V	69	1.67	11.00	18.40	4-B	15	5.21	4.80	25.00	3-B	64	1.19	11.80	14.00	3-5V
18	6.25	4.80	30.00	4-B	70	1.64	9.75	16.00	2-5V	16	4.81	5.20	25.00	3-3V	64	1.19	15.40	18.40	4-B
20	5.61	4.50	25.00	4-3V	70	1.64	9.00	15.40	4-B	16	4.81	5.20	25.00	4-C	66	1.15	10.30	11.80	3-5V
20	5.77	5.20	30.00	3-B	72	1.60	7.50	12.00	4-C	18	4.19	6.00	25.00	3-3V	66	1.16	9.50	11.00	4-C
21	5.43	4.60	25.00	4-B	73	1.57	8.00	12.50	3-5V	18	4.17	6.00	25.00	3-B	67	1.14	13.20	15.00	2-5V
22	5.31	4.75	25.00	4-3V	73	1.57	7.00	11.00	5-C	19	4.03	4.75	19.00	5-3V	67	1.14	10.50	12.00	3-C
22	5.17	5.80	30.00	4-B	75	1.54	6.90	10.60	6-3V	19	4.00	5.00	20.00	4-C	69	1.11	9.00	10.00	4-C
23	5.04	5.00	25.00	4-3V	75	1.54	13.00	20.00	2-C	21	3.61	5.30	19.00	4-3V	71	1.07	14.00	15.00	2-5V
23	5.00	5.00	25.00	4-B	76	1.52	9.25	14.00	3-5V	21	3.68	5.00	18.40	4-C	71	1.08	13.00	14.00	3-C
25	4.63	4.40	25.00	4-B	77	1.49	7.40	11.00	5-B	22	3.41	5.60	19.00	5-3V	73	1.05	10.50	11.00	3-C
25	4.50	5.40	25.00	4-C	77	1.49	8.00	11.80	3-5V	22	3.41	5.40	18.40	5-B	74	1.03	9.00	9.25	4-5V
26	4.50	5.60	25.00	4-3V	78	1.48	8.00	11.80	3-5V	24	3.18	6.00	19.00	5-3V	78	0.97	9.25	9.00	4-5V
26	4.46	5.60	25.00	4-B	78	1.47	7.50	11.00	4-C	24	3.23	6.20	20.00	4-B	80	0.95	9.75	9.25	4-5V
27	4.19	6.00	25.00	3-3V	79	1.46	10.30	15.00	2-5V	24	3.23	6.20	20.00	4-B	80	0.95	9.75	9.25	4-5V
27	4.31	5.80	25.00	4-B	79	1.45	11.00	16.00	3-C	25	3.01	7.10	21.20	2-5V	80	0.95	10.00	9.50	4-C
29	3.99	7.10	28.00	2-5V	80	1.43	9.25	13.20	3-5V	25	3.07	6.00	18.40	4-B	81	0.94	12.50	11.80	3-5V
29	4.00	5.00	20.00	4-B	80	1.44	8.60	12.40	5-B	27	2.85	7.50	21.20	2-5V	81	0.94	9.00	8.50	5-C
30	3.83	5.00	19.00	5-3V	81	1.41	8.50	12.00	4-C	27	2.79	6.60	18.40	4-B	83	0.92	9.75	9.00	4-5V
30	3.85	5.20	20.00	5-B	82	1.39	8.50	11.80	3-5V	28	2.77	6.90	19.00	4-3V	83	0.92	12.00	11.00	4-C
31	3.68	5.00	18.40	5-B	82	1.40	11.00	15.40	4-B	28	2.71	6.80	18.40	4-B	84	0.90	10.50	9.50	4-C
33	3.53	8.00	28.00	2-5V	84	1.37	8.00	10.90	4-5V	30	2.51	8.50	21.20	2-5V	85	0.89	13.20	11.80	3-5V
33	3.45	5.80	20.00	4-B	84	1.37	9.50	13.00	4-C	30	2.57	6.50	15.40	5-B	85	0.90	20.00	18.00	2-C
34	3.41	5.60	19.00	5-3V	85	1.36	11.80	16.00	2-5V	31	2.49	7.40	18.40	4-B	86	0.88	8.50	7.50	5-5V
34	3.41	5.40	18.40	6-B	86	1.33	7.50	10.00	5-C	32	2.38	8.00	19.00	4-3V	86	0.89	12.40	11.00	5-B
35	3.32	8.50	28.00	2-5V	88	1.30	7.50	9.75	4-5V	32	2.41	6.40	14.00	5-B	88	0.86	8.00	6.90	10-3V
35	3.29	5.60	18.40	5-B	88	1.31	8.00	10.50	4-C	34	2.27	7.10	16.00	3-5V	88	0.86	11.00	9.50	4-C
36	3.18	6.00	19.00	5-3V	89	1.28	9.75	12.50	3-5V	34	2.27	11.00	25.00	3-B	89	0.85	11.00	9.40	6-B
36	3.19	9.40	30.00	3-B	89	1.29	8.50	11.00	4-C	35	2.15	7.50	16.00	3-5V	91	0.83	8.50	7.10	5-5V
38	3.01	7.10	21.20	3-5V	91	1.27	7.50	9.50	5-C	35	2.20	8.20	18.00	6-A	91	0.84	18.40	15.40	4-B
38	3.03	6.60	20.00	4-B	92	1.24	12.40	15.40	4-B	37	2.04	6.90	14.00	5-3V	92	0.82	11.80	9.75	3-5V
39	2.94	6.50	19.00	4-3V	93	1.24	7.50	9.25	4-5V	37	2.08	7.40	15.40	5-B	94	0.81	9.25	7.50	5-5V
39	2.94	6.80	20.00	4-B	93	1.24	8.50	10.50	4-C	38	1.99	7.10	14.00	3-5V	94	0.81	13.00	10.50	3-C
41	2.79	6.60	18.40	4-B	94	1.22	8.00	9.75	4-5V	38	2.00	9.00	18.00	5-A	95	0.81	15.40	12.40	4-B
42	2.77	6.90	19.00	4-3V	94	1.22	9.00	11.00	4-C	40	1.89	9.50	18.00	3-5V	96	0.79	9.50	7.50	5-5V
42	2.71	6.80	18.40	4-B	95	1.21	9.00	10.90	3-5V	40	1.89	9.50	18.00	2-C	97	0.78	11.80	9.25	3-5V
43	2.66	5.30	14.00	6-3V	96	1.20	7.50	9.00	4-5V	41	1.87	7.10	13.20	3-5V	97	0.78	11.00	8.60	6-B
43	2.70	7.40	20.00	4-B	96	1.20	10.00	12.00	3-C	43	1.77	7.50	14.00	4-C	99	0.77	9.75	7.50	5-5V
46	2.51	5.60	14.00	5-3V	97	1.18	9.25	10.90	3-5V	43	1.85	8.00	14.00	5-3V	99	0.77	11.00	8.50	4-C
46	2.48	6.20	15.40	4-B	97	1.18	11.00	13.00	3-C	43	1.79	8.60	15.40	4-B	100	0.77	9.25	7.10	5-5V
47	2.42	12.40	30.00	2-B	98	1.17	9.40	11.00	5-B	44	1.74	9.25	16.00	2-5V	100	0.76	12.40	9.40	5-B
48	2.38	8.00	19.00	3-3V	100	1.15	9.00	10.30	3-5V	44	1.73	7.50	13.00	3-C	103	0.74	12.50	9.25	3-5V
48	2.41	6.40	15.40	4-B	101	1.14	7.50	8.50	4-5V	46	1.67	7.10	11.80	3-5V	103	0.74	9.50	7.00	6-C
50	2.31	9.25	21.20	2-5V	101	1.14	10.50	12.00	3-C	46	1.64	9.40	15.40	3-B	105	0.73	10.30	7.50	5-5V
50	2.29	10.50	24.00	2-C	102	1.12	12.50	14.00	2-5V	47	1.63	9.25	15.00	2-5V	105	0.72	11.80	13.00	3-C
51	2.27	7.10	16.00	3-5V	102	1.13	11.00	12.40	4-B	47	1.62	15.40	25.00	2-B	106	0.72	18.00	8.50	4-5V
51	2.26	6.80	15.40	5-B	103	1.12	11.80	13.20	2-5V	48	1.58	7.50	11.80	3-5V	107	0.71	15.40	11.00	6-B
52	2.20	8.20	18.00	6-A	103	1.12	8.50	9.50	4-C	48	1.60	7.50	12.00	3-C	110	0.69	14.00	9.75	4-5V
53	2.16	6.50	14.00	6-3V	104	1.11	9.50	10.50	4-C	50	1.52	9.25	14.00	3-5V	110	0.69	13.00	9.00	5-C
53	2.18	11.00	24.00	2-C	105	1.09	11.00	12.00	4-C	50	1.52	10.50	16.00	3-C	111	0.69	10.90	7.50	5-5V
55	2.08	7.40	15.40	5-B	107	1.07	14.00	15.00	2-5V	51	1.48	8.00	11.80	4-5V	111	0.69	16.00	11.00	4-C
55	2.04	6.90	14.00	5-3V	107	1.08	13.00	14.00	3-C	51	1.48	12.40	18.40	3-B	113	0.68	11.80	8.00	5-5V
56	2.07	6.00	12.40	6-B	108	1.06	10.30	10.90	3-5V	53	1.43	9.25	13.20	3-5V	113	0.67	18.40	12.40	5-B
58	1.99	7.10	14.00	3-5V	109	1.05	9.25	9.75	4-5V	53	1.44	8.60	12.40	5-B	116	0.66	14.00	9.25	4-5V
59	1.95	10.90	21.20	2-5V	109	1.05	10.00	10.50	4-C	55	1.39	8.50	11.80	3-5V	116	0.65	13.00	8.50	5-C
59	1.94	6.40	12.40	5-B	110	1.05	10.50	11.00	4-C	55	1.38	13.00	18.00	2-C	117	0.65	10.90	7.10	5-5V
60	1.90	10.50	20.00	2-5V	112	1.03	9.00	9.25	4-5V	56	1.36	14.00	19.00	3-3V	117	0.65	20.00	13.00	3-C
61	1.89	8.50	16.00	2-C	115	1.00	10.30	10.30	3-5V	56	1.36	7.00	9.50	5-C	118	0.65	15.00	9.75	3-5V
61	1.88	8.50	16.00	3-C	115	1.00	11.00	11.00	5-B										

## V-belt Drives for TXT725 & SCXT725 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	6.93	3.65	25.00	3-B	49	1.46	7.50	10.90	2-5V	10	4.66	4.12	19.00	3-3V	49	0.95	11.00	10.50	2-C
10	7.31	5.20	38.00	2-B	49	1.44	8.60	12.40	3-B	10	4.74	3.80	18.00	4-A	50	0.94	9.00	8.50	3-5V
11	6.52	4.60	30.00	3-B	50	1.43	9.25	13.20	2-5V	11	4.26	4.40	19.00	4-3V	50	0.92	8.00	7.50	4-C
12	6.13	4.12	25.00	3-3V	50	1.43	6.00	8.60	6-B	11	4.35	4.60	20.00	3-B	51	0.92	11.80	10.90	2-5V
12	6.00	5.00	30.00	2-B	51	1.39	8.50	11.80	2-5V	12	4.03	4.75	19.00	3-3V	51	0.92	1.40	6.80	6-B
13	5.31	4.75	25.00	2-3V	51	1.40	11.00	15.40	3-B	12	4.00	4.60	18.40	3-B	52	0.91	9.40	8.60	5-B
13	5.43	4.60	25.00	3-B	52	1.38	7.10	9.75	3-5V	13	3.61	5.30	19.00	3-3V	53	0.89	9.00	8.00	3-5V
14	5.04	5.00	25.00	2-3V	52	1.36	7.00	9.50	4-C	13	3.68	5.00	18.40	3-B	53	0.89	12.40	11.00	4-B
14	5.00	5.00	25.00	2-B	53	1.34	6.00	8.00	6-3V	14	3.41	5.60	19.00	3-3V	54	0.87	11.80	10.30	2-5V
15	4.66	4.12	19.00	3-3V	53	1.34	6.40	8.60	5-B	14	3.35	4.60	15.40	3-B	54	0.88	8.00	7.00	5-C
15	4.74	3.80	18.00	4-A	54	1.33	8.00	10.60	4-3V	15	3.13	4.50	14.00	4-3V	55	0.86	9.25	8.00	3-5V
16	4.50	5.60	25.00	2-3V	54	1.32	9.40	12.40	4-B	15	3.21	4.80	15.40	3-B	55	0.85	11.00	9.40	4-B
16	4.50	4.00	18.00	4-A	56	1.28	9.25	11.80	2-5V	17	2.82	5.00	14.00	4-3V	56	0.85	10.90	9.25	3-5V
17	4.26	4.50	19.00	4-3V	56	1.27	7.40	9.40	4-B	17	2.79	6.60	18.40	3-B	56	0.84	18.40	15.40	3-B
17	4.17	4.80	20.00	4-B	57	1.24	12.40	15.40	3-B	18	2.66	5.80	15.40	4-3V	57	0.82	11.80	9.75	2-5V
18	4.03	4.75	19.00	3-3V	58	1.23	6.50	8.00	6-3V	18	2.66	5.80	15.40	3-B	57	0.82	8.50	7.00	4-C
18	4.00	4.60	18.40	4-B	58	1.23	6.00	7.40	6-B	19	2.51	5.60	14.00	4-3V	59	0.81	15.40	12.40	3-B
20	3.61	5.30	19.00	3-3V	59	1.21	10.00	10.90	2-5V	19	2.48	5.00	12.40	4-B	60	0.78	11.80	9.25	2-5V
20	3.54	5.20	18.40	3-B	59	1.20	10.00	12.00	2-C	20	2.34	6.00	14.00	4-3V	60	0.78	11.00	8.60	4-B
21	3.41	5.60	19.00	3-3V	60	1.18	9.25	10.90	2-5V	20	2.38	5.20	12.40	4-B	61	0.78	12.50	9.75	2-5V
21	3.41	5.40	18.40	3-B	60	1.18	9.00	10.60	5-A	22	2.13	5.00	10.60	4-3V	61	0.78	9.00	7.00	4-C
22	3.18	6.00	19.00	3-3V	61	1.16	6.90	8.00	5-3V	22	2.14	5.80	12.40	3-B	62	0.76	14.00	10.60	4-3V
22	3.29	5.60	18.40	3-B	61	1.16	7.40	8.60	4-B	23	2.01	5.30	10.60	5-3V	62	0.76	12.40	9.40	4-B
23	3.14	8.00	25.00	2-3V	62	1.15	6.00	6.90	6-3V	23	2.07	6.00	12.40	4-B	63	0.75	10.60	8.00	5-3V
23	3.07	6.00	18.40	3-B	62	1.16	6.40	7.40	5-B	24	1.99	7.10	14.00	2-5V	63	0.74	10.60	6.40	6-B
24	2.94	6.50	19.00	3-3V	63	1.13	7.10	8.00	3-5V	24	1.96	5.60	11.00	4-B	64	0.74	12.50	9.25	2-5V
24	2.97	6.20	18.40	3-B	63	1.13	7.10	8.00	3-5V	25	1.90	5.60	10.60	5-3V	64	0.74	9.50	7.00	4-C
25	2.82	5.00	14.00	4-3V	64	1.11	9.25	10.30	2-5V	25	1.90	5.80	11.00	4-B	65	0.72	15.00	10.90	2-5V
25	2.87	6.40	18.40	3-B	64	1.12	8.50	9.50	3-C	26	1.80	10.60	19.00	2-3V	65	0.72	9.40	6.80	6-B
26	2.77	6.90	19.00	3-3V	65	1.09	8.50	9.25	3-5V	26	1.82	6.80	12.40	3-B	66	0.72	11.80	8.50	3-5V
26	2.79	6.60	18.40	3-B	65	1.09	8.60	9.40	5-B	27	1.75	8.00	14.00	3-3V	66	0.71	15.40	11.00	4-B
27	2.66	5.30	14.00	4-3V	67	1.06	10.30	10.90	2-5V	27	1.77	6.20	11.00	4-B	67	0.71	21.20	15.00	2-5V
27	2.66	5.80	15.40	3-B	67	1.07	7.50	8.00	4-C	28	1.67	7.10	11.80	2-5V	67	0.71	10.00	7.00	4-C
30	2.34	6.00	14.00	4-3V	68	1.05	9.50	10.00	3-C	28	1.68	5.60	9.40	4-B	68	0.71	13.20	9.25	3-5V
30	2.33	6.60	15.40	3-B	69	1.03	9.00	9.25	3-5V	29	1.64	6.50	10.60	4-3V	68	0.69	12.40	8.60	5-B
31	2.27	7.10	16.00	2-5V	71	1.00	10.60	10.60	4-3V	29	1.62	6.80	11.00	3-B	70	0.68	11.80	8.00	3-5V
31	2.26	6.80	15.40	3-B	73	1.00	9.40	9.40	4-B	30	1.57	8.00	12.50	2-5V	70	0.68	11.00	7.40	5-B
32	2.24	4.75	10.60	6-3V	73	0.99	9.25	9.00	3-5V	30	1.57	6.00	9.40	5-B	71	0.67	18.00	12.00	5-A
33	2.13	5.00	10.60	5-3V	75	0.95	10.90	10.30	2-5V	31	1.54	6.90	10.60	5-3V	72	0.66	14.00	9.25	3-5V
33	2.14	5.80	12.40	4-B	75	0.94	9.50	9.00	3-C	31	1.53	8.50	13.00	2-C	72	0.65	13.00	8.00	3-C
34	2.07	6.00	12.40	4-B	76	0.94	8.50	8.00	3-5V	33	1.43	9.25	13.20	2-5V	73	0.65	10.60	6.90	6-3V
35	2.04	6.90	14.00	3-3V					2-5V	34	1.39	8.50	11.80	2-5V	74	0.64	14.00	9.00	3-C
35	2.04	5.40	11.00	4-B					6-B	34	1.38	6.80	9.40	4-B	74	0.64	11.00	7.00	3-5V
36	1.99	7.10	14.00	2-5V					3-5V	35	1.34	6.00	8.00	6-3V	75	0.63	11.80	7.50	3-5V
36	2.00	6.20	12.40	4-B					5-B	35	1.34	4.00	8.60	4-B	75	0.63	12.00	7.50	4-C
38	1.88	7.50	14.00	2-5V					3-5V	36	1.32	10.60	14.00	3-3V					
38	1.88	6.60	12.40	4-B					4-5V	36	1.32	9.40	12.40	3-B					
39	1.82	6.80	12.40	4-B					6-A	37	1.27	7.40	9.40	4-B					
40	1.77	6.00	10.60	5-3V					2-5V	39	1.21	9.00	10.90	2-5V					
40	1.77	6.20	11.00	4-B					4-C	39	1.19	15.40	18.40	2-B					
41	1.75	8.00	14.00	3-3V					8-3V	40	1.18	9.25	10.90	2-5V					
41	1.72	6.40	11.00	4-B					5-B	40	1.17	9.40	11.00	3-B					
42	1.68	7.50	12.50	2-5V					3-5V	41	1.16	6.90	8.00	6-3V					
42	1.68	7.40	12.40	4-B					4-C	41	1.16	7.40	8.60	4-B					
43	1.66	8.00	13.20	2-5V					2-5V	42	1.11	9.25	10.30	2-5V					
43	1.67	6.60	11.00	4-B					3-C	42	1.13	11.00	12.40	3-B					
44	1.64	6.50	10.60	4-3V					2-5V	43	1.09	8.50	9.25	3-5V					
44	1.62	6.80	11.00	4-B					5-C	43	1.09	8.60	9.40	4-B					
45	1.58	7.50	11.80	2-5V					3-5V	44	1.07	7.50	8.00	3-5V					
45	1.57	6.00	9.40	4-B					4-C	44	1.07	7.50	8.00	3-C					
47	1.51	5.30	8.00	6-3V					4-5V	47	1.00	10.60	10.60	3-3V					
47	1.52	6.20	9.40	4-B					4-C	47	1.00	9.40	9.40	3-B					
48	1.48	8.00	11.80	2-5V					4-C	48	0.97	9.25	9.00	2-5V					
48	1.49	7.40	11.00	3-B					4-C										

Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factor.

★ Dodge stock sheaves. Outside diameters shown for DYN-AV (3V & 5V), pitch diameters for A, B & C sheaves. All ratios based on P.D.  
Sheaves in shaded area represent speed up drives.



## V-belt Drives for TXT815 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Output RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
14	8.26	4.60	38.00	4-B	61	1.90	10.50	20.00	3-C	10	7.52	4.50	33.50	3-V	57	1.36	14.00	19.00	5-3V
15	7.52	4.00	33.50	3-V	63	1.85	10.30	24.00	3-C	10	7.92	4.80	38.00	3-B	57	1.36	18.40	25.00	4-B
15	7.60	5.00	38.00	3-B	64	1.80	11.80	21.20	2-5V	11	7.12	4.75	33.50	4-3V	58	1.32	10.60	14.00	6-3V
16	7.12	4.75	33.50	3-V	64	1.80	10.00	18.00	3-C	11	7.04	5.40	38.00	3-B	58	1.32	9.40	12.40	6-B
16	7.31	5.20	38.00	3-B	65	1.80	10.60	19.00	5-3V	12	6.37	5.30	33.50	4-3V	59	1.31	9.00	11.80	4-5V
18	6.37	5.30	33.50	4-V	65	1.79	8.60	15.40	6-B	12	6.33	6.00	38.00	3-B	59	1.30	15.40	20.00	4-B
18	6.33	6.00	38.00	3-B	66	1.75	8.00	14.00	6-3V	14	5.31	4.75	25.00	5-3V	61	1.26	9.50	12.00	4-C
19	6.03	5.60	33.50	3-V	66	1.75	8.00	14.00	5-C	14	5.56	5.40	30.00	4-B	62	1.24	12.40	15.40	5-B
19	6.00	5.00	30.00	4-B	68	1.70	12.50	21.20	3-5V	15	5.04	5.00	25.00	4-3V	63	1.21	10.90	13.20	3-5V
20	5.77	5.20	30.00	4-B	68	1.71	10.50	18.00	4-C	15	5.00	5.00	25.00	4-B	64	1.20	12.50	15.00	3-5V
21	5.62	6.00	33.50	4-3V	69	1.67	9.00	15.00	4-5V	16	4.75	5.30	25.00	4-3V	64	1.19	15.40	18.40	4-B
21	5.56	5.40	30.00	5-B	69	1.67	11.00	18.40	5-B	16	4.81	5.20	25.00	4-B	66	1.16	8.00	9.25	5-5V
22	5.31	4.75	25.00	5-3V	70	1.65	9.75	16.00	3-5V	18	4.19	6.00	25.00	4-3V	66	1.17	9.40	11.00	6-B
22	5.17	5.80	30.00	4-B	70	1.67	12.00	20.00	3-C	18	4.17	6.00	25.00	4-B	67	1.15	10.90	12.50	3-5V
24	4.75	5.30	25.00	5-3V	71	1.63	9.25	15.00	4-5V	19	3.99	7.10	28.00	2-5V	67	1.14	10.50	12.00	4-C
24	4.81	5.20	25.00	5-B	71	1.64	9.40	15.40	6-B	19	4.03	6.20	25.00	4-B	69	1.12	12.50	14.00	3-5V
25	4.63	5.40	25.00	5-B	73	1.60	10.00	16.00	4-C	20	3.87	6.50	25.00	4-3V	69	1.11	18.00	20.00	3-C
26	4.50	5.60	25.00	5-3V	74	1.56	10.30	16.00	3-5V	20	3.91	6.40	25.00	4-B	71	1.08	10.90	11.80	4-5V
26	4.46	5.60	25.00	5-B	75	1.54	9.75	15.00	4-5V	21	3.64	6.90	25.00	5-3V	71	1.09	18.40	20.00	4-B
27	4.29	7.00	30.00	3-C	75	1.54	13.00	20.00	3-C	21	3.68	6.80	25.00	5-B	72	1.06	13.20	14.00	3-5V
29	3.99	7.10	28.00	2-5V	76	1.52	9.25	14.00	4-5V	23	3.32	8.50	28.00	2-5V	77	1.00	14.00	14.00	6-3V
29	4.05	7.40	30.00	4-B	76	1.52	10.50	16.00	4-C	23	3.33	6.00	20.00	5-B	77	1.00	18.40	18.40	4-B
30	3.87	6.50	25.00	4-3V	77	1.50	12.00	18.00	3-C	24	3.18	6.00	19.00	6-3V	82	0.94	14.00	13.20	3-5V
30	3.91	6.40	25.00	4-B	78	1.48	12.40	18.40	5-B	24	3.19	8.40	30.00	3-B	83	0.92	11.80	10.90	4-5V
31	3.77	7.50	28.00	2-5V	80	1.45	11.00	16.00	4-C	25	3.14	8.00	25.00	4-3V	83	0.93	13.00	12.00	4-C
31	3.79	6.60	25.00	4-B	81	1.44	9.75	14.00	3-5V	25	3.07	6.00	18.40	5-B	84	0.92	12.00	11.00	4-C
32	3.61	5.30	19.00	6-3V	81	1.43	10.40	20.00	3-C	27	2.85	7.50	21.20	3-5V	85	0.90	10.50	9.50	5-C
32	3.57	5.60	20.00	5-B	83	1.39	9.00	12.50	4-5V	27	2.86	7.00	20.00	4-C	86	0.89	13.20	11.80	3-5V
34	3.38	7.40	25.00	5-B	83	1.40	11.00	15.40	5-B	28	2.77	6.90	19.00	5-3V	87	0.88	15.00	13.20	3-5V
35	3.32	8.50	28.00	2-5V	84	1.38	10.90	15.00	3-5V	28	2.70	7.40	20.00	5-B	87	0.89	12.40	11.00	6-B
35	3.32	8.00	20.00	6-B	84	1.38	13.00	18.00	3-C	29	2.67	8.00	21.20	3-5V	89	0.86	11.00	9.50	5-C
36	3.18	6.00	19.00	6-3V	86	1.36	9.25	12.50	4-5V	29	2.67	7.50	20.00	3-C	90	0.86	10.50	9.00	5-C
36	3.19	9.40	30.00	4-B	87	1.33	12.00	16.00	3-C	30	2.58	10.90	28.00	2-5V	91	0.84	14.00	11.80	3-5V
37	3.14	8.00	25.00	4-3V	88	1.32	10.60	14.00	6-3V	30	2.57	7.00	18.00	4-C	91	0.85	13.00	11.50	4-C
37	3.13	6.40	20.00	6-B	88	1.32	9.40	12.40	6-B	32	2.38	8.00	19.00	5-3V	92	0.83	15.00	12.50	3-5V
38	3.01	7.10	21.20	3-5V	89	1.30	10.00	13.00	4-C	32	2.40	7.50	18.00	3-C	92	0.84	18.40	15.40	5-B
38	3.07	6.00	18.40	6-B	90	1.28	10.30	13.20	3-5V	33	2.36	10.60	25.00	3-3V	93	0.82	11.80	9.75	4-5V
40	2.89	9.75	28.00	2-5V	90	1.29	14.00	18.00	3-C	33	2.33	8.60	20.00	4-B	95	0.81	13.00	10.50	5-C
40	2.87	6.40	18.40	6-B	92	1.26	9.50	12.00	4-C	35	2.19	9.75	21.20	3-5V	96	0.80	20.00	16.00	4-C
41	2.85	7.00	20.00	3-5V	93	1.24	12.40	15.40	5-B	35	2.22	9.00	20.00	3-C	97	0.79	12.00	9.50	6-C
41	2.86	7.00	20.00	4-C	94	1.24	10.50	13.00	4-C	36	2.13	7.10	15.00	4-5V	99	0.78	14.00	10.90	4-5V
42	2.77	8.00	19.00	5-3V	95	1.22	10.30	12.50	4-5V	36	2.14	8.60	18.40	5-B	99	0.78	18.00	14.00	4-C
43	2.67	8.00	19.00	3-5V	96	1.21	10.90	10.90	5-5V	38	2.01	8.00	16.00	3-5V	100	0.77	20.00	15.40	6-B
44	2.70	7.40	20.00	6-B	96	1.21	12.00	14.50	4-0	38	2.01	8.00	16.00	3-5V	101	0.76	11.80	9.00	6-5V
44	2.67	7.50	20.00	4-C	97	1.20	12.50	15.00	3-5V	39	1.99	9.00	18.00	3-C	102	0.76	14.00	10.60	8-3V
46	2.51	8.50	21.20	3-5V	97	1.19	13.00	15.50	4-C	39	1.96	9.40	18.40	5-B	103	0.75	14.00	10.50	5-C
46	2.50	8.00	20.00	4-C	99	1.17	12.00	14.00	4-C	40	1.90	10.50	20.00	4-B	104	0.74	13.00	10.40	6-3V
47	2.49	7.40	18.40	6-B	101	1.15	10.30	11.80	4-5V	42	1.82	11.00	20.00	4-B	106	0.72	15.00	10.90	4-5V
48	2.40	7.50	18.00	4-C	101	1.15	13.00	15.00	4-0	44	1.74	9.25	16.00	3-5V	106	0.73	11.00	8.00	8-C
49	2.38	8.00	19.00	5-3V	102	1.14	13.20	15.00	3-5V	45	1.70	12.50	21.20	2-5V	107	0.72	12.50	9.00	5-5V
49	2.35	8.50	20.00	4-C	102	1.14	10.50	12.00	5-C	45	1.71	10.50	18.00	3-C	107	0.72	18.00	13.00	4-C
51	2.17	7.10	18.40	6-3V	103	1.13	11.00	12.40	5-B	47	1.63	9.25	15.00	3-5V	108	0.71	14.00	10.00	5-C
51	2.27	11.00	25.00	4-B	106	1.09	11.00	12.00	5-C	47	1.64	9.40	15.40	5-B	109	0.71	21.20	15.00	3-5V
52	2.25	12.50	28.00	2-5V	107	1.08	10.90	11.80	4-5V	48	1.61	13.20	21.20	2-5V	109	0.69	14.00	9.75	5-5V
52	2.22	9.00	20.00	3-C	107	1.08	12.00	13.00	5-C	48	1.61	12.40	20.00	4-B	111	0.69	14.00	9.75	5-5V
53	2.19	9.75	21.20	3-5V	108	1.07	14.00	15.00	3-5V	49	1.56	10.30	16.00	3-5V	111	0.69	13.00	9.00	6-C
53	2.18	11.00	24.00	3-C	108	1.08	13.00	14.00	4-C	49	1.56	9.00	14.00	4-C	112	0.68	15.00	10.30	4-5V
54	2.15	7.50	16.00	4-5V	109	1.06	13.20	14.00	3-5V	51	1.52	9.25	14.00	3-5V	112	0.69	16.00	11.00	5-C
54	2.14	8.60	18.40	6-B	110	1.06	12.50	13.20	3-5V	51	1.50	12.00	18.00	3-C	114	0.68	11.80	8.00	6-5V
55	2.13	9.40	20.00	5-B	111	1.05	10.50	11.00	5-C	52	1.48	8.50	12.50	4-5V	114	0.67	11.00	7.40	10-B
58	2.01	7.50	15.00	4-5V	112	1.04	13.00	13.50	5-C	52	1.48	12.40	18.40	4-B	115	0.67	18.00	12.00	4-C
58	2.02	12.40	25.00	4-B	113	1.03	9.00	9.25	5-5V	54	1.43	9.25	12.00	4-5V	117	0.66	14.00	9.25	5-5V
59	1.95	10.90	21.20	3-5V	116	1.00	14.00	14.00	6-3V	54	1.43	14.00	20.00	3-C	117	0.66	16.00	10.50	5-C
59	1.96	9.40	18.40	5-B	116	1.00	10.50	10.50	5-C	55	1.39	9.00	12.50	4-5V	118	0.65	13.00	8.50	6-C
61	1.89	8.50</																	

## V-belt Drives for TXT825 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	7.31	5.20	38.00	2-B	48	1.48	8.00	11.80	3-5V	10	4.75	5.30	25.00	3-3V	47	1.00	10.60	10.60	5-3V
11	6.52	4.60	30.00	3-B	48	1.49	7.40	11.00	5-B	10	4.81	5.20	25.00	3-B	47	1.00	12.40	12.40	4-B
12	6.13	4.12	25.00	3-3V	49	1.44	9.75	14.00	2-5V	11	4.26	4.50	19.00	4-3V	48	0.97	9.25	9.00	4-5V
12	6.00	5.00	30.00	2-B	49	1.44	8.60	12.40	5-B	11	4.35	4.60	20.00	3-B	49	0.95	11.00	10.50	3-C
13	5.31	4.75	25.00	3-3V	50	1.43	9.25	13.20	3-5V	12	4.03	4.75	19.00	3-3V	50	0.95	13.20	12.50	2-5V
13	5.43	4.60	25.00	4-B	50	1.41	8.50	12.00	3-C	12	4.00	4.60	18.40	3-B	50	0.94	9.00	8.50	4-C
13	5.04	5.00	25.00	3-3V	51	1.39	8.50	11.80	3-5V	13	3.61	5.30	19.00	4-3V	51	0.92	11.80	10.80	3-5V
14	5.00	5.00	25.00	3-B	51	1.40	11.00	15.40	4-B	13	3.68	5.00	18.40	4-B	51	0.92	20.00	18.40	3-B
16	4.50	5.60	25.00	3-3V	52	1.37	8.00	10.90	3-5V	14	3.41	5.60	19.00	4-3V	52	0.91	9.40	8.60	6-B
16	4.35	4.60	20.00	4-B	52	1.36	7.00	9.50	5-C	14	3.41	5.40	18.40	4-B	54	0.87	11.80	10.30	3-5V
17	4.19	6.00	25.00	3-3V	53	1.33	7.50	10.00	5-C	16	2.94	6.50	19.00	3-3V	54	0.88	12.00	10.50	4-C
17	4.17	6.00	25.00	3-B	54	1.33	8.00	10.60	6-3V	16	2.97	6.20	18.40	3-B	55	0.86	9.25	8.00	5-5V
18	4.03	4.75	19.00	4-3V	54	1.32	9.40	12.40	5-B	17	2.77	6.90	19.00	4-3V	55	0.85	11.00	9.40	6-B
18	4.00	5.00	20.00	4-B	55	1.28	12.50	16.00	2-5V	17	2.79	6.60	18.40	4-B	56	0.85	10.90	9.25	4-5V
19	3.83	5.00	19.00	4-3V	55	1.30	10.00	13.00	3-C	18	2.66	5.30	17.00	5-3V	56	0.84	18.40	15.40	4-B
19	3.68	5.00	18.40	4-B	56	1.28	9.25	11.80	3-5V	18	2.66	5.80	15.40	4-B	57	0.82	11.80	9.75	5-5V
20	3.61	5.30	19.00	4-3V	56	1.28	8.60	11.00	5-B	19	2.51	5.60	14.00	5-3V	57	0.83	12.00	10.00	4-C
20	3.54	5.20	18.40	4-B	57	1.24	7.50	9.25	4-5V	19	2.49	7.40	18.40	3-B	58	0.82	9.75	8.00	4-5V
21	3.41	5.60	19.00	4-3V	57	1.24	12.40	15.40	4-B	20	2.38	8.00	19.00	3-3V	58	0.81	13.00	10.50	3-C
21	3.41	5.40	18.40	5-B	58	1.22	8.00	9.75	4-5V	20	2.41	6.40	15.40	4-B	59	0.81	15.40	12.40	4-B
22	3.18	6.00	19.00	4-3V	58	1.24	8.50	10.50	4-C	21	2.27	7.10	16.00	3-5V	60	0.78	11.80	9.25	3-5V
22	3.29	5.60	18.40	4-B	59	1.21	9.00	10.90	3-5V	21	2.26	6.80	15.40	4-B	60	0.78	11.00	8.60	6-B
23	3.14	8.00	25.00	3-3V	59	1.20	10.00	12.00	3-C	22	2.16	6.50	14.00	5-3V	61	0.78	12.50	9.75	3-5V
23	3.07	6.00	18.40	4-B	60	1.18	9.25	10.90	3-5V	22	2.16	6.80	13.20	4-3V	61	0.77	11.00	8.50	4-C
24	2.94	6.50	19.00	4-3V	60	1.18	8.50	10.00	4-C	23	2.04	6.90	14.00	5-3V	62	0.76	14.00	10.60	5-3V
24	2.97	6.20	18.40	4-B	62	1.15	9.00	10.30	3-5V	23	2.08	7.40	15.40	4-B	62	0.76	12.40	9.40	5-B
25	2.82	5.00	14.00	5-3V	62	1.14	10.50	12.00	3-C	24	1.99	7.10	14.00	3-5V	63	0.75	10.60	8.00	8-3V
25	2.87	6.40	18.40	4-B	63	1.12	11.80	13.20	2-5V	24	1.96	9.40	18.40	3-B	63	0.75	10.00	7.50	5-C
26	2.77	6.90	19.00	4-3V	63	1.13	11.00	12.40	4-B	25	1.89	8.00	15.40	2-5V	65	0.73	10.30	7.50	4-5V
26	2.71	6.80	18.40	4-B	64	1.11	9.25	10.30	3-5V	25	1.88	6.60	12.40	4-B	65	0.73	11.00	8.00	5-C
27	2.66	5.30	14.00	6-3V	64	1.12	8.50	9.50	4-C	26	1.80	10.60	19.00	3-3V	66	0.72	12.50	9.00	3-5V
27	2.66	9.40	25.00	3-B	65	1.09	8.50	9.25	4-5V	26	1.79	8.60	15.40	4-B	66	0.71	15.40	11.00	5-B
28	2.51	5.60	14.00	5-3V	65	1.09	8.60	9.40	6-B	28	1.67	7.10	11.80	3-5V	67	0.70	13.20	9.25	3-5V
28	2.57	6.00	15.40	5-B	66	1.08	9.00	9.75	3-5V	28	1.68	7.40	12.40	4-B	67	0.71	12.00	8.50	4-C
29	2.48	6.20	15.40	4-B	66	1.08	12.00	13.00	3-C	29	1.63	9.25	15.00	2-5V	68	0.69	14.00	9.75	4-5V
30	2.38	8.00	19.00	3-3V	67	1.06	11.80	12.50	2-5V	29	1.64	9.40	15.40	3-B	68	0.69	13.00	9.00	5-C
30	2.41	6.40	15.40	4-B	67	1.06	8.50	9.00	4-C	30	1.58	7.50	11.80	3-5V	69	0.69	10.90	7.50	5-5V
32	2.21	5.60	12.40	5-B	68	1.05	10.00	10.50	4-C	30	1.57	7.00	10.00	4-C	69	0.68	14.00	9.50	4-C
33	2.16	6.50	14.00	4-3V	69	1.03	9.00	9.25	4-5V	31	1.54	6.90	10.60	6-3V	70	0.68	12.50	8.50	4-5V
33	2.14	8.60	18.40	3-B	71	1.00	10.30	10.30	3-5V	31	1.50	12.00	18.00	4-A	70	0.67	18.40	12.40	5-B
34	2.07	10.30	21.20	2-5V	71	1.00	11.00	11.00	5-B	32	1.47	9.00	13.20	2-5V	71	0.67	18.00	12.00	3-C
34	2.08	7.40	15.40	5-B	73	0.97	9.25	9.00	4-5V	32	1.49	7.40	11.00	4-B	72	0.66	14.00	9.25	4-5V
35	2.04	6.90	14.00	5-3V	74	0.95	11.00	10.50	4-C	34	1.39	8.50	11.80	3-5V	72	0.65	13.00	8.50	5-C
35	2.02	12.40	25.00	3-B	75	0.94	10.90	10.30	3-5V	34	1.40	11.00	15.40	4-B	73	0.65	15.00	9.75	3-5V
36	1.99	7.10	14.00	3-5V	75	0.95	10.00	9.50	4-C	35	1.36	14.00	19.00	3-3V	73	0.64	14.00	9.00	5-C
36	1.96	9.40	18.40	4-B	...	...	...	...	3-5V	35	1.33	7.50	10.00	4-C	74	0.64	12.50	8.00	4-5V
37	1.94	6.40	12.40	5-B	...	...	...	...	3-C	36	1.32	10.60	14.00	4-3V	75	0.63	16.00	10.00	4-C
38	1.89	8.50	16.00	2-5V	...	...	...	...	3-5V	36	1.32	9.40	12.40	4-B	...	...	...	...	...
38	1.86	7.00	13.00	4-C	...	...	...	...	3-5V	37	1.29	8.50	10.90	3-5V	...	...	...	...	...
39	1.80	11.80	21.20	2-5V	...	...	...	...	5-B	37	1.28	8.60	11.00	5-B	...	...	...	...	...
39	1.82	6.80	12.40	5-B	...	...	...	...	4-5V	38	1.24	7.50	9.25	4-5V	...	...	...	...	...
40	1.77	6.00	10.60	6-3V	...	...	...	...	4-C	38	1.24	12.40	15.40	3-B	...	...	...	...	...
40	1.79	8.60	15.40	4-B	...	...	...	...	3-5V	39	1.21	10.90	13.20	2-5V	...	...	...	...	...
41	1.75	8.00	14.00	4-3V	...	...	...	...	4-C	39	1.19	15.40	18.40	3-B	...	...	...	...	...
41	1.72	6.40	11.00	5-B	...	...	...	...	6-B	41	1.15	10.90	12.50	2-5V	...	...	...	...	...
42	1.67	9.00	15.00	2-5V	...	...	...	...	4-5V	41	1.16	7.40	8.60	6-B	...	...	...	...	...
42	1.67	11.00	18.40	3-B	...	...	...	...	5-C	42	1.13	7.10	8.00	4-5V	...	...	...	...	...
43	1.65	8.75	16.00	2-5V	...	...	...	...	5-5V	42	1.13	11.00	12.40	4-B	...	...	...	...	...
43	1.64	9.40	15.40	4-B	...	...	...	...	4-5V	43	1.08	10.90	11.80	3-5V	...	...	...	...	...
44	1.63	9.25	15.00	3-5V	...	...	...	...	3-5V	43	1.09	8.60	9.40	6-B	...	...	...	...	...
44	1.60	7.50	12.00	4-C	...	...	...	...	4-C	44	1.06	13.20	14.00	2-5V	...	...	...	...	...
45	1.57	8.00	12.50	3-5V	...	...	...	...	4-C	44	1.08	13.00	14.00	3-C	...	...	...	...	...
45	1.57	7.00	11.00	5-C	...	...	...	...	5-5V	45	1.06	12.50	13.20	2-5V	...	...	...	...	...
47	1.52	9.25	14.00	3-5V	...	...	...	...	5-C	45	1.05	10.50	11.00	3-C	...	...	...	...	...
47	1.50	12.00	18.00	5-A	...	...	...	...	5-C	46	1.03	9.00	9.25	4-5V	...	...	...	...	...

Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYN-AV (3V & 5V); pitch diameters for A, B & C sheaves. All ratios based on P.D. Sheaves in shaded area represent speed up drives.



# V-belt Drives for TXT915 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
16	7.04	5.40	38.00	6-B	65	1.79	9.00	16.00	5-5V	12	6.33	6.00	38.00	5-B	52	1.47	10.90	16.00	4-5V
17	6.79	5.60	38.00	5-B	67	1.74	9.25	16.00	5-5V	13	5.94	6.40	38.00	5-B	52	1.48	12.40	18.40	6-B
18	6.37	5.30	33.50	5-3V	68	1.70	12.50	21.20	3-5V	14	5.62	6.00	33.50	5-3V	53	1.46	10.30	15.00	4-5V
18	6.33	6.00	38.00	5-B	68	1.71	10.50	18.00	5-C	14	5.59	6.80	38.00	5-B	53	1.45	11.00	16.00	4-C
19	6.03	5.60	33.50	5-3V	69	1.67	9.00	15.00	5-5V	15	5.05	7.50	37.50	5-3V	54	1.42	15.00	21.20	3-5V
19	5.94	6.40	38.00	4-B	69	1.67	12.00	20.00	4-C	15	5.14	7.40	38.00	5-B	54	1.43	14.00	20.00	4-C
20	5.76	6.60	38.00	4-B	70	1.65	9.75	16.00	4-5V	16	4.88	6.90	33.50	5-3V	55	1.38	13.00	18.00	4-C
21	5.62	6.00	33.50	6-3V	71	1.63	9.25	15.00	5-5V	16	4.80	7.50	36.00	4-C	56	1.36	14.00	19.00	6-3V
21	5.59	6.80	38.00	5-B	71	1.64	11.00	18.00	5-C	17	4.42	8.60	38.00	4-B	56	1.36	18.40	25.00	4-B
22	5.19	6.50	33.50	5-3V	72	1.61	13.20	21.20	3-5V	18	4.21	8.00	33.50	5-3V	59	1.30	15.40	20.00	8-B
22	5.05	7.50	37.50	3-5V	72	1.61	12.40	20.00	8-B	18	4.29	7.00	30.00	4-C	60	1.28	12.50	16.00	4-5V
23	5.00	6.00	30.00	6-B	74	1.56	10.30	16.00	4-5V	20	3.77	7.50	28.00	3-5V	60	1.29	14.00	18.00	5-C
24	4.88	6.90	33.50	5-3V	75	1.54	9.75	15.00	5-5V	20	3.75	8.00	30.00	3-C	61	1.25	16.00	20.00	4-C
24	4.80	7.50	36.00	4-C	75	1.54	13.00	20.00	4-C	21	3.64	6.90	25.00	8-3V	62	1.23	13.00	16.00	5-C
25	4.69	6.40	30.00	6-B	76	1.52	14.00	21.20	4-5V	21	3.60	10.00	36.00	3-C	63	1.21	10.90	13.20	5-5V
26	4.41	6.80	30.00	5-B	77	1.50	12.00	18.00	5-C	22	3.53	8.00	28.00	3-5V	64	1.20	12.50	15.00	4-5V
27	4.29	7.00	30.00	5-C	78	1.48	12.40	18.00	8-B	22	3.49	8.60	30.00	5-B	64	1.20	20.00	24.00	3-C
28	4.21	8.00	33.50	5-3V	79	1.47	10.90	16.00	5-5V	23	3.32	8.50	28.00	3-5V	65	1.19	11.80	14.00	5-5V
29	3.99	7.10	28.00	4-5V	81	1.43	14.00	20.00	5-C	23	3.38	7.40	25.00	6-B	66	1.17	12.00	14.00	5-C
29	4.05	7.40	30.00	6-B	84	1.38	10.90	15.00	5-5V	24	3.14	8.00	25.00	6-3V	67	1.15	10.90	12.50	5-5V
31	3.77	7.50	28.00	3-5V	84	1.38	13.00	18.00	5-C	24	3.19	9.40	30.00	5-B	67	1.14	14.00	16.00	5-C
31	3.75	8.00	30.00	4-C	85	1.36	11.80	16.00	4-5V	25	3.01	7.10	21.20	4-5V	68	1.12	12.50	14.00	4-5V
32	3.64	6.90	25.00	6-3V	87	1.32	12.00	16.00	5-C	25	3.06	12.40	38.00	4-B	68	1.12	16.00	18.00	4-C
32	3.60	10.00	36.00	3-C	88	1.32	10.60	14.00	10-3V	26	2.91	8.60	25.00	5-B	69	1.12	11.80	13.20	5-5V
33	3.53	8.00	28.00	4-5V	90	1.28	12.50	16.00	4-5V	27	2.82	9.75	28.00	3-5V	69	1.11	14.00	18.00	5-C
33	3.53	8.50	30.00	5-C	90	1.29	14.00	18.00	5-C	27	2.74	10.30	28.00	5-C	71	1.08	12.00	13.00	5-C
34	3.43	10.50	36.00	3-C	91	1.27	11.80	15.00	4-5V	28	2.73	11.00	30.00	5-B	72	1.06	13.20	14.00	4-5V
35	3.32	8.50	28.00	3-5V	95	1.21	10.90	13.20	6-5V	28	2.73	11.00	30.00	5-B	72	1.06	12.50	13.20	4-5V
35	3.33	9.00	30.00	4-C	96	1.20	12.50	15.00	5-5V	30	2.58	10.90	28.00	3-5V	73	1.06	12.50	13.20	4-5V
36	3.19	9.40	30.00	5-B	97	1.19	11.80	14.00	5-5V	30	2.53	9.50	24.00	4-C	74	1.04	13.00	13.50	4-C
37	3.14	8.00	25.00	6-3V	101	1.14	14.00	16.00	4-5V	31	2.51	8.50	21.20	4-5V	77	1.00	12.50	12.50	5-5V
37	3.16	9.50	30.00	4-C	102	1.14	13.20	15.00	5-5V	31	2.50	12.00	30.00	3-C	77	1.00	16.00	16.00	5-C
38	3.05	9.25	28.00	3-5V	103	1.12	11.80	13.20	5-5V	32	2.36	10.60	25.00	5-3V	79	0.97	14.50	14.00	4-D
38	3.06	12.40	38.00	4-B	107	1.08	10.90	11.80	6-5V	32	2.42	12.40	30.00	4-B	80	0.96	14.00	13.50	4-D
39	2.86	8.00	24.00	5-C	108	1.07	14.00	15.00	4-5V	33	2.31	9.25	21.20	4-5V	81	0.95	13.20	12.50	5-5V
40	2.89	9.75	28.00	3-5V	109	1.06	11.80	12.50	5-5V	33	2.31	13.00	30.00	3-C	82	0.94	16.00	15.00	4-5V
40	2.91	8.60	25.00	6-B	110	1.06	12.50	13.20	5-5V	34	2.25	12.50	28.00	3-5V	82	0.93	14.50	13.50	4-D
41	2.85	13.20	37.50	3-5V	116	1.00	11.80	11.80	5-5V	34	2.29	10.50	24.00	4-C	83	0.92	13.00	12.00	6-C
41	2.86	10.50	30.00	4-C	...	...	...	...	...	35	2.19	9.75	21.20	4-5V	85	0.90	20.00	18.00	4-C
42	2.74	10.30	28.00	3-5V	...	...	...	...	...	35	2.18	11.00	24.00	4-C	86	0.89	13.20	11.80	5-5V
42	2.73	11.00	30.00	6-B	...	...	...	...	...	36	2.13	13.20	28.00	3-5V	86	0.89	18.00	16.00	5-C
44	2.66	9.40	25.00	8-B	...	...	...	...	...	36	2.11	9.50	20.00	5-C	87	0.88	15.00	13.20	5-5V
45	2.58	10.90	28.00	3-5V	...	...	...	...	...	37	2.07	10.30	21.20	3-5V	88	0.87	16.00	14.00	4-5V
45	2.57	14.00	36.00	3-C	...	...	...	...	...	37	2.07	18.40	38.00	4-B	88	0.88	16.00	14.00	5-C
46	2.53	9.50	24.00	5-C	...	...	...	...	...	38	2.01	14.00	28.00	2-5V	89	0.87	15.00	13.00	4-D
48	2.40	10.00	24.00	4-C	...	...	...	...	...	38	2.02	12.40	25.00	5-B	90	0.86	14.00	12.00	6-C
49	2.36	10.60	25.00	6-3V	...	...	...	...	...	39	1.95	10.90	21.20	3-5V	91	0.84	14.00	11.80	5-5V
50	2.31	9.25	21.20	4-5V	...	...	...	...	...	39	1.95	15.40	30.00	4-B	91	0.85	13.00	11.00	8-C
51	2.25	12.50	28.00	3-5V	...	...	...	...	...	40	1.89	9.50	18.00	4-C	92	0.83	15.00	12.50	5-5V
51	2.29	10.50	24.00	4-C	...	...	...	...	...	41	1.87	15.00	28.00	3-5V	92	0.84	18.40	15.40	8-B
53	2.19	9.75	21.20	3-5V	...	...	...	...	...	41	1.87	16.00	30.00	3-C	93	0.82	16.00	13.20	5-5V
53	2.18	11.00	24.00	4-C	...	...	...	...	...	42	1.85	13.00	24.00	4-C	98	0.78	16.00	12.50	5-5V
54	2.13	13.20	28.00	3-5V	...	...	...	...	...	43	1.79	14.00	25.00	6-3V	99	0.78	14.00	10.90	6-5V
54	2.13	9.40	20.00	6-B	...	...	...	...	...	43	1.80	20.00	36.00	3-C	102	0.75	21.20	16.00	4-5V
55	2.11	9.50	20.00	4-C	...	...	...	...	...	44	1.75	16.00	28.00	3-5V	104	0.74	16.00	11.80	6-5V
56	2.07	10.30	21.20	3-5V	...	...	...	...	...	45	1.70	12.50	21.20	3-5V	105	0.73	14.00	10.30	8-5V
57	2.02	12.00	25.00	2-5V	...	...	...	...	...	45	1.71	10.50	18.00	5-C	106	0.72	15.00	10.90	6-5V
58	2.01	14.00	28.00	2-5V	...	...	...	...	...	46	1.67	12.00	20.00	4-C	109	0.71	21.20	15.00	4-5V
58	2.00	10.00	20.00	4-C	...	...	...	...	...	47	1.62	15.40	25.00	5-B	110	0.70	13.20	9.25	8-5V
59	1.95	10.90	21.20	4-5V	...	...	...	...	...	48	1.61	13.20	21.20	3-5V	111	0.69	14.00	9.75	8-5V
61	1.90	10.50	20.00	5-C	...	...	...	...	...	48	1.61	12.40	20.00	6-B	112	0.68	15.00	10.30	6-5V
63	1.85	13.00	24.00	4-C	...	...	...	...	...	49	1.56	10.30	16.00	4-5V	113	0.68	16.00	10.90	6-5V
64	1.80	16.00	19.00	8-3V	...	...	...	...	...	50	1.52	10.50	16.00	5-C	116	0.66	21.20	14.00	4-5V
64	1.82	11.00	20.00	5-C	...	...	...	...	...	51	1.52	14.00	21.20	3-5V	117	0.66	14.00	9.25	8-5V
					...	...	...	...	...	51	1.50	12.00	18.00	4-C	118	0.65	15.00	9.75	6-5V

Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V & 5V); pitch diameters for B, C & D sheaves. All ratios based on P.D. Sheaves in shaded area represent speed up drives.

## V-belt Drives for TXT926 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driver sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	7.12	4.75	33.50	4-3V	44	1.54	13.00	20.00	3-C	10	4.75	5.30	25.00	5-3V	48	0.95	13.20	12.50	3-5V
10	7.04	5.40	38.00	4-B	45	1.52	9.25	14.00	4-5V	10	4.63	5.40	25.00	5-B	48	0.95	10.00	9.50	5-C
11	6.03	5.60	33.50	3-3V	45	1.50	12.00	18.00	3-C	11	4.19	6.00	25.00	4-3V	49	0.92	11.80	10.90	4-5V
11	6.00	5.00	30.00	4-B	46	1.47	10.90	16.00	3-5V	11	4.17	6.00	25.00	4-B	49	0.92	12.00	11.00	4-C
12	5.62	6.00	33.50	4-3V	46	1.48	12.40	18.40	5-B	12	3.87	6.50	25.00	5-3V	50	0.90	10.30	9.25	5-5V
12	5.77	5.20	30.00	5-B	47	1.44	9.75	14.00	3-5V	12	3.91	6.40	25.00	5-B	50	0.90	10.50	9.50	5-C
13	5.31	4.75	30.00	5-3V	47	1.45	11.00	16.00	4-C	13	3.53	8.00	28.00	2-5V	51	0.89	13.20	11.80	3-5V
13	5.17	5.80	30.00	4-B	48	1.43	9.25	13.20	4-5V	13	3.38	7.40	25.00	4-B	51	0.89	12.40	11.00	6-B
14	5.04	5.00	25.00	5-3V	48	1.43	14.00	20.00	3-C	15	3.01	7.10	21.20	3-5V	52	0.87	11.80	10.30	4-5V
14	4.81	5.20	25.00	5-B	49	1.38	10.90	15.00	3-5V	15	3.00	8.00	24.00	3-C	52	0.88	12.00	10.50	4-C
15	4.46	5.60	25.00	5-3V	49	1.40	11.00	15.40	5-B	16	2.77	6.90	19.00	5-3V	53	0.85	10.80	9.25	5-5V
16	4.19	6.00	25.00	5-3V	50	1.37	9.50	13.00	4-C	16	2.91	8.60	25.00	4-3V	53	0.86	10.50	9.00	5-C
16	4.17	6.00	25.00	5-B	51	1.33	12.00	16.00	3-C	17	2.67	8.00	21.20	3-5V	54	0.84	14.00	11.80	3-5V
17	3.99	7.10	28.00	2-5V	52	1.32	10.60	14.00	6-3V	18	2.51	8.50	21.20	3-5V	55	0.82	11.80	9.75	4-5V
17	3.91	6.40	25.00	4-B	52	1.32	9.40	12.40	6-B	18	2.49	7.40	18.40	5-B	55	0.82	11.00	9.00	5-C
18	3.87	6.50	25.00	4-3V	53	1.28	10.30	13.20	3-5V	19	2.38	8.00	19.00	5-3V	56	0.81	15.40	12.40	5-B
18	3.79	6.60	25.00	4-B	53	1.29	14.00	18.00	3-C	19	2.33	8.60	20.00	4-3V	57	0.79	12.00	9.50	5-C
19	3.61	5.30	19.00	6-3V	54	1.27	11.80	15.00	3-5V	20	2.27	7.10	16.00	3-5V	58	0.78	14.00	10.80	3-5V
19	3.57	5.60	20.00	5-B	54	1.26	9.50	12.00	4-C	20	2.27	11.00	25.00	3-B	58	0.79	14.00	11.00	4-C
20	3.41	5.60	19.00	5-3V	55	1.24	12.40	15.40	5-B	21	2.13	7.10	15.00	4-5V	60	0.76	14.00	10.60	8-3V
20	3.41	5.40	18.40	6-B	55	1.22	10.30	12.50	3-5V	21	2.14	8.60	18.40	5-B	60	0.75	14.00	10.50	5-C
21	3.18	6.00	19.00	6-3V	57	1.19	11.80	14.00	3-5V	22	2.01	8.00	16.00	3-5V	61	0.74	19.00	14.00	6-3V
21	3.19	4.90	30.00	4-B	57	1.20	10.00	12.00	4-C	22	2.08	7.40	15.40	6-B	62	0.73	13.00	9.50	6-5V
22	3.14	8.00	25.00	4-3V	58	1.18	9.25	10.90	4-5V	23	1.99	7.10	14.00	4-5V	62	0.73	13.00	9.50	6-C
22	3.07	8.00	18.40	6-B	58	1.17	9.40	11.00	6-B	23	1.96	9.40	18.40	5-B	63	0.72	12.50	9.00	5-5V
23	2.94	6.50	19.00	6-3V	59	1.15	10.30	11.80	4-5V	24	1.89	8.00	15.00	3-5V	63	0.71	14.00	10.00	5-C
23	2.94	6.80	20.00	5-B	59	1.15	13.00	15.00	4-C	24	1.87	7.50	14.00	4-C	64	0.71	21.20	15.00	3-5V
24	2.85	7.50	21.20	3-5V	60	1.15	9.00	10.30	5-5V	25	1.80	10.60	19.00	4-3V	64	0.71	12.00	8.50	8-C
24	2.87	6.40	18.40	6-B	60	1.14	10.50	12.00	5-C	25	1.79	8.60	15.40	5-B	65	0.70	13.20	9.25	5-5V
25	2.77	6.90	19.00	5-3V	61	1.12	12.50	14.00	3-5V	26	1.75	8.00	14.00	4-3V	65	0.70	20.00	14.00	4-C
25	2.71	6.80	18.40	5-B	61	1.13	11.00	12.40	8-B	26	1.73	7.50	13.00	4-C	66	0.68	15.00	10.30	4-5V
26	2.67	8.00	21.20	3-5V	63	1.08	10.90	11.80	4-5V	27	1.65	9.75	16.00	3-5V	66	0.69	16.00	11.00	5-C
26	2.66	9.40	25.00	4-B	63	1.08	13.00	14.00	4-C	27	1.67	11.00	18.40	5-B	67	0.68	11.80	8.00	6-5V
27	2.51	8.50	21.20	3-5V	64	1.06	10.30	10.90	4-5V	28	1.63	9.25	15.00	3-5V	67	0.67	11.00	7.40	10-B
27	2.49	7.40	18.40	6-B	64	1.07	13.50	14.50	4-D	28	1.64	9.40	15.40	5-B	68	0.67	18.00	12.00	4-C
28	2.40	7.50	18.00	4-C	65	1.06	12.50	13.20	3-5V	29	1.54	9.75	15.00	3-5V	69	0.66	14.00	9.25	5-5V
29	2.38	8.00	19.00	5-3V	65	1.05	10.50	11.00	5-C	29	1.56	9.00	14.00	4-C	69	0.66	16.00	10.50	5-C
29	2.33	8.60	20.00	5-B	66	1.03	9.00	9.25	5-5V	30	1.52	9.25	14.00	3-5V	70	0.65	20.00	9.75	4-5V
30	2.27	7.10	16.00	4-5V	66	1.04	13.00	13.50	4-D	30	1.48	12.40	14.00	4-B	70	0.65	15.00	13.00	4-C
31	2.19	9.75	21.20	2-5V	68	1.00	14.00	10.50	5-C	31	1.44	9.75	14.00	3-5V	71	0.63	11.80	7.50	6-5V
31	2.22	10.00	20.00	3-C	70	0.97	9.25	9.00	5-5V	31	1.44	8.60	12.40	6-B	72	0.63	16.00	10.00	5-C
32	2.15	7.50	16.00	3-5V	71	0.95	11.00	10.50	5-C	32	1.43	9.25	13.20	3-5V	73	0.62	21.20	13.20	3-5V
32	2.14	8.60	18.40	5-B	72	0.95	10.20	12.50	3-5V	32	1.40	11.00	15.40	5-B	73	0.62	20.00	12.40	6-B
33	2.07	10.30	21.20	3-5V	72	0.95	10.50	10.00	5-C	33	1.37	9.50	13.00	4-C	74	0.61	14.00	8.50	6-C
33	2.08	7.40	15.40	8-B	73	0.93	14.00	13.00	4-C	34	1.32	10.60	14.00	6-3V	75	0.60	14.00	8.50	5-5V
34	2.01	7.50	15.00	4-5V	74	0.92	9.25	8.50	5-5V	34	1.32	9.40	12.40	6-B	75	0.60	20.00	12.00	4-C
34	2.02	12.40	25.00	4-B	74	0.92	13.00	12.00	4-C	35	1.29	10.90	14.00	3-5V	76	0.60	15.00	9.00	6-5V
35	1.95	10.90	21.20	3-5V	75	0.91	11.00	10.00	5-C	35	1.30	15.40	20.00	4-B	...	...	...	...	...
35	1.96	9.40	18.40	5-B	...	...	...	...	...	37	1.21	10.90	13.20	3-5V	...	...	...	...	...
36	1.89	8.50	16.00	3-5V	...	...	...	...	...	37	1.24	10.50	13.00	4-C	...	...	...	...	...
36	1.90	10.50	20.00	3-C	...	...	...	...	...	38	1.18	9.25	10.90	4-5V	...	...	...	...	...
38	1.80	10.60	19.00	5-3V	...	...	...	...	...	38	1.19	15.40	18.40	4-B	...	...	...	...	...
38	1.79	8.60	15.40	6-B	...	...	...	...	...	39	1.15	10.90	12.50	3-5V	...	...	...	...	...
39	1.75	8.00	14.00	6-3V	...	...	...	...	...	39	1.17	9.40	11.00	6-B	...	...	...	...	...
39	1.73	7.50	13.00	5-C	...	...	...	...	...	40	1.12	11.80	13.20	3-5V	...	...	...	...	...
40	1.70	12.50	21.20	2-5V	...	...	...	...	...	40	1.13	11.00	12.40	5-B	...	...	...	...	...
40	1.71	10.50	18.00	3-C	...	...	...	...	...	42	1.08	10.90	11.80	4-5V	...	...	...	...	...
41	1.65	9.75	16.00	3-5V	...	...	...	...	...	42	1.09	18.40	20.00	4-C	...	...	...	...	...
41	1.67	11.00	18.40	5-B	...	...	...	...	...	43	1.06	12.50	13.20	3-5V	...	...	...	...	...
42	1.63	9.25	15.00	4-5V	...	...	...	...	...	43	1.05	10.50	11.00	5-C	...	...	...	...	...
42	1.64	9.40	15.40	6-B	...	...	...	...	...	45	1.00	14.00	14.00	6-3V	...	...	...	...	...
43	1.60	10.00	16.00	4-C	...	...	...	...	...	45	1.00	18.40	18.40	4-B	...	...	...	...	...
44	1.56	10.30	16.00	3-5V	...	...	...	...	...	47	0.95	10.50	10.00	5-C	...	...	...	...	...

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V & 5V); pitch diameters for B, C & D sheaves. All ratios based on P.D. Sheaves in shaded area represent speed up drives.



## V-belt Drives for TXT1015 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1750 RPM Motors										Driven by 1160 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
16	7.13	7.10	50.00	3-5V	58	2.01	14.00	28.00	4-5V	11	7.13	7.10	50.00	3-5V	41	1.85	13.00	24.00	5-C
17	6.32	7.10	50.00	3-5V	58	2.01	12.00	24.00	6-C	12	6.32	8.00	50.00	3-5V	42	1.80	11.80	21.20	5-5V
18	6.29	9.00	50.00	3-5V	59	1.95	10.50	21.20	5-5V	12	6.29	7.00	44.00	4-C	42	1.83	12.00	22.00	4-D
19	5.94	8.50	50.00	3-5V	64	1.80	11.80	21.20	5-5V	13	5.94	8.50	50.00	3-5V	43	1.80	10.60	19.00	10-3V
20	5.87	7.50	44.00	5-C	65	1.79	14.00	25.00	8-3V	13	5.87	7.50	44.00	4-C	43	1.80	20.00	36.00	4-C
21	5.61	9.00	50.00	3-5V	68	1.70	12.50	21.20	5-5V	14	5.34	7.10	37.50	4-5V	44	1.75	16.00	28.00	3-5V
22	5.34	7.10	37.50	4-5V	72	1.61	13.20	21.20	5-5V	14	5.50	8.00	44.00	4-C	45	1.70	12.50	21.20	4-5V
22	5.14	7.40	38.00	6-8	76	1.52	14.00	21.20	4-5V	15	5.05	7.50	37.50	4-5V	45	1.71	14.00	24.00	5-C
23	5.05	7.50	37.50	4-5V	78	1.47	10.90	16.00	6-5V	15	5.14	7.40	38.00	6-8	46	1.67	12.00	20.00	5-C
24	4.73	8.00	37.50	4-5V	80	1.45	12.50	18.00	4-8V	16	4.89	10.30	50.00	3-5V	47	1.61	12.40	20.00	8-8
24	4.80	7.50	26.00	5-C	84	1.37	13.20	18.00	4-8V	16	4.89	9.00	44.00	4-C	48	1.61	13.20	21.20	5-5V
25	4.63	9.50	44.00	4-C	85	1.36	14.00	19.00	4-8V	17	4.45	8.50	37.50	3-5V	49	1.57	14.00	22.00	4-D
26	4.45	8.50	37.50	3-5V	89	1.29	13.20	17.00	4-8V	17	4.42	8.60	38.00	6-8	50	1.52	14.00	21.20	5-5V
26	4.42	8.60	38.00	6-8	95	1.21	13.20	16.00	6-5V	18	4.20	9.00	37.50	3-5V	50	1.54	13.00	20.00	6-C
27	4.21	8.00	33.50	6-3V	101	1.14	13.20	15.00	6-5V	18	4.24	8.50	26.00	4-C	51	1.50	16.00	24.00	5-C
27	4.21	8.50	36.00	4-C	108	1.07	14.00	15.00	6-5V	19	4.09	9.25	37.50	3-5V	52	1.47	15.00	22.00	4-D
28	4.09	9.25	37.50	4-5V	109	1.06	13.20	14.00	6-5V	19	4.00	9.00	36.00	4-C	53	1.45	12.50	18.00	4-8V
28	4.19	10.50	44.00	4-C	115	1.00	13.20	13.20	6-5V	20	3.88	9.75	37.50	3-5V	54	1.42	15.00	21.20	4-5V
29	4.02	12.50	50.00	3-5V	...	...	...	...	...	20	3.79	9.50	36.00	4-C	54	1.43	14.00	20.00	6-C
29	4.04	9.40	38.00	8-8	...	...	...	...	...	21	3.67	10.30	37.50	3-5V	55	1.38	13.00	18.00	6-C
30	3.88	7.50	37.50	3-5V	...	...	...	...	...	21	3.60	10.00	36.00	4-C	56	1.36	14.00	19.00	10-3V
30	3.79	9.50	36.00	5-C	...	...	...	...	...	22	3.46	10.90	37.50	3-5V	56	1.36	18.40	25.00	8-8
31	3.67	10.30	37.50	3-5V	...	...	...	...	...	22	3.49	8.60	30.00	6-8	57	1.33	18.00	24.00	5-C
31	3.67	12.00	44.00	4-C	...	...	...	...	...	23	3.27	8.50	28.00	5-5V	58	1.33	16.00	21.20	4-5V
32	3.60	10.00	36.00	4-C	...	...	...	...	...	23	3.27	11.00	36.00	4-C	59	1.30	15.40	20.00	8-8
33	3.46	10.90	37.50	3-5V	...	...	...	...	...	24	3.13	9.00	28.00	4-5V	63	1.21	13.20	16.00	6-5V
33	3.45	11.00	38.00	6-8	...	...	...	...	...	24	3.16	9.50	30.00	4-C	67	1.14	13.20	15.00	6-5V
34	3.43	10.50	36.00	4-C	...	...	...	...	...	25	3.05	9.25	28.00	4-5V	71	1.07	14.00	15.00	6-5V
35	3.27	11.00	36.00	4-C	...	...	...	...	...	25	3.06	12.40	38.00	5-8	72	1.07	15.00	16.00	5-5V
36	3.17	10.60	33.50	6-3V	...	...	...	...	...	26	2.89	9.75	28.00	4-5V	77	1.00	15.00	15.00	5-5V
36	3.19	9.40	30.00	8-8	...	...	...	...	...	26	3.00	10.00	30.00	4-C	81	0.95	13.20	12.50	6-5V
37	3.13	9.00	28.00	5-5V	...	...	...	...	...	27	2.85	13.20	37.50	3-5V	82	0.93	15.00	14.00	5-5V
37	3.14	14.00	44.00	4-C	...	...	...	...	...	27	2.86	10.50	30.00	4-C	86	0.89	13.20	11.80	8-8
38	3.05	9.25	28.00	5-5V	...	...	...	...	...	28	2.74	10.30	28.00	4-5V	87	0.88	15.00	13.20	8-5V
38	3.00	12.00	36.00	5-C	...	...	...	...	...	28	2.73	11.00	30.00	5-C	88	0.87	16.00	14.00	4-8V
40	2.89	9.75	28.00	4-5V	...	...	...	...	...	30	2.58	10.90	28.00	4-5V	91	0.84	14.00	11.80	8-5V
40	2.86	10.50	30.00	5-C	...	...	...	...	...	30	2.57	14.00	36.00	4-C	92	0.83	15.00	12.50	8-5V
42	2.74	10.30	28.00	4-5V	...	...	...	...	...	31	2.50	12.00	30.00	4-C	93	0.82	16.00	13.20	8-5V
42	2.73	11.00	30.00	5-C	...	...	...	...	...	32	2.36	10.60	25.00	8-3V	97	0.79	15.00	11.80	8-5V
43	2.69	14.00	37.50	3-5V	...	...	...	...	...	32	2.42	12.40	30.00	6-8	98	0.78	14.00	10.90	8-5V
45	2.58	10.90	28.00	4-5V	...	...	...	...	...	33	2.29	10.50	24.00	5-C	99	0.77	17.00	13.20	4-8V
45	2.57	14.00	36.00	4-C	...	...	...	...	...	33	2.25	12.50	28.00	3-5V	104	0.74	16.00	11.80	8-5V
46	2.50	12.00	30.00	5-C	...	...	...	...	...	34	2.27	11.00	25.00	8-8	105	0.73	18.00	13.20	4-8V
48	2.38	11.80	28.00	4-5V	...	...	...	...	...	35	2.18	11.00	24.00	5-C	106	0.72	15.00	10.90	8-5V
48	2.42	12.40	30.00	8-8	...	...	...	...	...	36	2.13	13.20	28.00	3-5V	108	0.71	21.20	15.00	5-5V
49	2.36	10.60	25.00	10-3V	...	...	...	...	...	36	2.14	14.00	30.00	4-C	109	0.70	21.20	15.00	4-8V
50	2.31	13.00	30.00	5-C	...	...	...	...	...	37	2.07	10.30	21.20	5-5V	110	0.70	13.20	9.25	10-5V
51	2.25	12.50	28.00	4-5V	...	...	...	...	...	37	2.07	18.40	38.00	6-8	111	0.69	19.00	13.20	4-8V
51	2.25	12.00	27.00	5-D	...	...	...	...	...	38	2.01	14.00	28.00	4-5V	112	0.68	15.00	10.30	8-5V
54	2.13	13.20	28.00	4-5V	...	...	...	...	...	38	2.00	12.00	24.00	5-C	113	0.68	16.00	10.90	8-5V
54	2.14	14.00	30.00	5-C	...	...	...	...	...	39	1.95	10.90	21.20	5-5V	116	0.66	21.20	14.00	6-5V
56	2.08	13.00	27.00	4-D	...	...	...	...	...	39	1.95	15.40	30.00	8-8	117	0.66	20.00	13.20	4-8V
57	2.02	12.40	25.00	8-8	...	...	...	...	...	40	1.90	20.00	38.00	6-8	118	0.65	15.00	9.75	8-5V
					...	...	...	...	...	41	1.87	15.00	28.00	4-5V	119	0.64	16.00	10.30	8-5V

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V & 5V); pitch diameters for B, C & D sheaves. All ratios based on P.D.  
Sheaves in shaded area represent speed up drives.

## V-belt Drives for TXT1015 & TXT1024 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

TXT1015 Driven by 870 RPM Motors										TXT1024 Driven by 1750 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	5.94	8.50	50.00	3-5V	38	1.50	16.00	24.00	4-C	10	7.12	4.75	33.50	5-3V	37	1.95	10.90	21.20	4-5V
10	5.87	7.50	44.00	4-C	40	1.43	14.00	20.00	5-C	10	7.31	5.20	38.00	5-B	38	1.90	10.50	20.00	5-C
11	5.05	7.50	37.50	3-5V	41	1.42	15.00	21.20	4-5V	11	6.37	5.30	33.50	4-3V	39	1.85	13.00	24.00	4-C
11	5.14	7.40	38.00	6-B	42	1.36	14.00	19.00	10-3V	11	6.55	5.80	38.00	4-B	40	1.79	9.00	16.00	5-5V
13	4.45	8.50	37.50	3-5V	43	1.33	16.00	21.20	4-5V	12	6.03	5.60	33.50	5-3V	40	1.82	11.00	20.00	5-C
13	4.42	8.60	38.00	5-B	45	1.28	12.50	16.00	6-5V	12	5.94	6.40	38.00	4-B	41	1.74	9.25	16.00	5-5V
14	4.20	9.00	37.50	3-5V	47	1.21	13.20	16.00	6-5V	13	5.62	6.00	33.50	4-3V	42	1.70	12.50	21.20	3-5V
14	4.04	9.40	38.00	5-B	48	1.20	12.50	15.00	6-5V	13	5.36	5.60	30.00	5-B	42	1.71	10.50	18.00	5-C
15	3.88	9.75	37.50	3-5V	50	1.14	13.20	15.00	6-5V	14	5.19	6.50	33.50	4-3V	43	1.67	9.00	15.00	5-5V
15	3.79	9.50	36.00	4-C	51	1.12	12.50	14.00	6-5V	14	5.00	6.00	30.00	5-B	43	1.67	12.00	20.00	4-C
16	3.67	10.30	37.50	3-5V	54	1.07	15.00	16.00	5-5V	15	4.88	6.90	33.50	5-3V	44	1.65	9.75	16.00	4-5V
16	3.60	10.00	36.00	4-C	57	1.00	16.00	16.00	5-5V	15	4.69	6.40	30.00	6-B	44	1.64	11.00	18.00	5-C
17	3.32	8.50	28.00	4-5V	61	0.94	16.00	15.00	6-5V	16	4.41	6.80	30.00	5-B	45	1.61	13.20	21.20	3-5V
17	3.45	11.00	38.00	5-B	62	0.93	15.00	14.00	6-5V	17	4.19	6.00	25.00	6-3V	45	1.61	12.40	20.00	8-B
18	3.13	9.00	28.00	4-5V	64	0.89	13.20	11.80	8-5V	17	4.17	6.00	25.00	6-B	46	1.56	10.30	16.00	4-5V
18	3.16	9.50	30.00	4-C	65	0.88	15.00	13.20	8-5V	18	3.99	7.10	28.00	3-5V	47	1.52	9.25	14.00	5-5V
19	3.05	9.25	28.00	4-5V	66	0.87	16.00	14.00	6-5V	18	3.91	6.40	25.00	6-B	47	1.52	10.50	16.00	5-C
19	3.00	10.00	30.00	4-C	68	0.84	14.00	11.80	8-5V	19	3.77	7.50	28.00	3-5V	48	1.50	12.00	18.00	5-C
20	2.85	13.20	37.50	3-5V	69	0.83	15.00	12.50	8-5V	19	3.75	8.00	30.00	4-C	49	1.47	10.90	16.00	5-5V
20	2.86	10.30	30.00	4-C	70	0.82	16.00	13.20	8-5V	20	3.64	8.90	25.00	6-3V	49	1.48	12.40	18.40	8-B
21	2.74	10.30	28.00	4-5V	73	0.79	15.00	11.80	8-5V	20	3.53	8.50	30.00	4-C	50	1.43	14.00	20.00	5-C
21	2.73	11.00	30.00	6-B	74	0.78	14.00	10.90	8-5V	21	3.38	7.40	25.00	6-B	52	1.38	10.90	15.00	5-5V
22	2.58	10.90	28.00	4-5V	...	...	...	...	5-5V	22	3.32	8.50	28.00	3-5V	52	1.38	13.00	18.00	5-C
22	2.57	14.00	36.00	3-C	...	...	...	...	4-8V	22	3.33	9.00	30.00	3-C	53	1.36	11.80	16.00	4-5V
23	2.51	15.00	37.50	3-5V	...	...	...	...	8-5V	23	3.14	8.00	25.00	6-3V	54	1.32	10.60	14.00	10-3V
23	2.50	12.00	30.00	4-C	...	...	...	...	4-8V	23	3.19	9.40	30.00	5-B	54	1.33	12.00	16.00	5-C
24	2.36	10.60	25.00	8-3V	...	...	...	...	6-5V	24	3.05	9.25	28.00	3-5V	56	1.28	12.50	16.00	4-5V
24	2.42	12.00	30.00	6-B	...	...	...	...	4-8V	24	3.00	8.00	24.00	5-C	56	1.29	14.00	18.00	5-C
25	2.31	13.40	30.00	4-C	...	...	...	...	10-5V	25	2.85	7.50	21.20	4-5V	57	1.27	11.80	15.00	4-5V
26	2.19	9.75	21.20	5-5V	...	...	...	...	8-5V	25	2.91	8.60	25.00	6-B	58	1.24	12.40	15.40	8-B
26	2.18	11.00	24.00	5-C	...	...	...	...	4-8V	26	2.74	10.30	28.00	3-5V	59	1.21	10.90	13.20	5-5V
27	2.13	13.20	28.00	3-5V	...	...	...	...	6-5V	26	2.82	8.50	24.00	4-C	59	1.23	13.00	16.00	5-C
27	2.14	14.00	30.00	4-C	...	...	...	...	5-8V	27	2.67	8.00	21.20	4-5V	60	1.20	12.50	15.00	5-5V
28	2.07	10.30	21.20	5-5V	...	...	...	...	10-5V	27	2.66	9.40	25.00	5-B	61	1.19	11.80	14.00	5-5V
28	2.02	12.40	25.00	8-B	...	...	...	...	8-5V	28	2.58	10.90	28.00	3-5V	63	1.14	14.00	16.00	4-5V
29	2.01	14.00	28.00	3-5V	...	...	...	...	4-8V	28	2.57	14.00	36.00	3-C	64	1.12	11.80	13.20	5-5V
29	2.00	12.00	24.00	5-C	...	...	...	...	10-5V	29	2.53	9.50	24.00	5-C	66	1.08	10.90	11.80	6-5V
30	1.90	20.00	38.00	5-B	...	...	...	...	8-5V	30	2.36	10.60	25.00	6-3V	67	1.07	14.00	15.00	4-5V
31	1.87	15.00	28.00	3-5V	...	...	...	...	6-5V	30	2.40	10.00	24.00	4-C	68	1.05	11.80	12.50	5-5V
31	1.85	13.00	24.00	5-C	...	...	...	...	8-5V	31	2.31	9.25	21.20	4-5V	72	1.00	11.60	11.80	5-5V
32	1.79	14.00	25.00	8-3V	...	...	...	...	5-8V	31	2.31	13.00	30.00	3-C	...	...	...	...	...
32	1.80	16.00	36.00	3-C	...	...	...	...	6-5V	32	2.25	12.50	28.00	3-5V	...	...	...	...	...
33	1.75	16.00	28.00	3-5V	...	...	...	...	8-5V	32	2.29	10.50	24.00	4-C	...	...	...	...	...
33	1.71	14.00	24.00	5-C	...	...	...	...	6-5V	33	2.19	9.75	21.20	3-5V	...	...	...	...	...
34	1.70	12.50	21.20	5-5V	...	...	...	...	...	33	2.18	11.00	24.00	4-C	...	...	...	...	...
34	1.67	18.00	30.00	4-C	...	...	...	...	...	34	2.13	13.20	28.00	3-5V	...	...	...	...	...
35	1.63	18.40	30.00	6-B	...	...	...	...	...	34	2.11	9.50	20.00	4-C	...	...	...	...	...
36	1.61	13.20	21.20	4-5V	...	...	...	...	...	35	2.07	10.30	21.20	3-5V	...	...	...	...	...
37	1.54	13.00	20.00	5-C	...	...	...	...	...	36	2.01	14.00	28.00	2-5V	...	...	...	...	...
38	1.52	14.00	21.20	4-5V	...	...	...	...	...	36	2.02	12.40	25.00	5-B	...	...	...	...	...

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V & 5V), pitch diameters for B, C & D sheaves. All ratios based on P.D.  
Shades in shaded area represent speed up drives.



## V-Belt Drives for TXT1024 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

Driven by 1160 RPM Motors										Driven by 870 RPM Motors									
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
10	4.88	6.90	33.50	4-3V	38	1.25	16.00	20.00	4-C	10	3.64	6.90	25.00	6-3V	35	1.04	13.50	14.00	4-D
10	5.00	6.00	30.00	5-B	39	1.21	10.90	13.20	5-5V	10	3.49	8.60	30.00	4-B	36	1.00	14.00	14.00	4-5V
11	4.19	6.00	25.00	5-3V	39	1.23	13.00	16.00	5-C	11	3.14	8.00	25.00	6-3V	36	1.00	13.00	13.00	4-D
11	4.17	6.00	25.00	5-B	40	1.20	12.50	15.00	4-5V	11	3.19	9.40	30.00	4-B	37	0.96	13.50	13.00	5-C
12	3.99	7.10	28.00	3-5V	40	1.20	20.00	24.00	5-C	12	3.05	9.25	28.00	3-5V	38	0.94	12.50	11.80	5-5V
12	4.05	7.40	30.00	5-B	41	1.17	12.00	14.00	5-C	12	2.91	8.60	25.00	5-B	38	0.93	14.50	13.50	4-D
13	3.64	8.00	30.00	5-3V	42	1.15	10.90	12.50	5-5V	13	2.74	10.30	28.00	3-5V	39	0.93	14.00	13.00	5-C
13	3.75	8.00	30.00	3-C	42	1.12	16.00	18.00	4-C	13	2.66	9.40	21.20	5-B	40	0.89	13.20	11.80	5-5V
14	3.53	8.00	28.00	3-5V	43	1.12	12.50	14.00	4-5V	14	2.51	8.50	21.20	5-B	41	0.87	14.00	14.00	4-5V
14	3.38	7.40	25.00	5-B	43	1.11	18.00	20.00	4-C	14	2.53	9.50	24.00	3-C	41	0.89	18.00	16.00	4-C
15	3.14	8.00	25.00	6-3V	44	1.08	10.90	11.80	5-5V	15	2.37	9.00	21.20	3-5V	43	0.84	14.00	11.80	5-5V
15	3.19	9.40	30.00	5-B	44	1.08	12.00	13.00	5-C	15	2.40	10.00	24.00	3-C	44	0.82	12.50	10.30	6-5V
16	3.01	7.10	21.20	4-5V	45	1.06	12.50	13.20	4-5V	16	2.19	9.75	21.20	3-5V	46	0.79	15.00	11.80	5-5V
16	2.91	8.60	25.00	5-B	46	1.04	13.00	13.50	4-D	16	2.27	11.00	25.00	5-B	47	0.76	28.00	21.20	3-5V
17	2.77	6.90	19.00	8-3V	48	1.00	12.50	12.50	5-5V	17	2.07	10.30	21.20	3-5V	48	0.75	21.20	16.00	4-5V
17	2.82	8.50	24.00	4-C	48	1.00	16.00	16.00	5-C	17	2.11	9.50	20.00	4-C	49	0.74	16.00	11.80	5-5V
18	2.67	8.00	21.20	3-5V	49	0.97	14.50	14.00	4-D	18	1.95	10.90	21.20	3-5V	50	0.72	12.50	9.00	8-5V
18	2.67	7.50	20.00	4-C	50	0.95	13.20	12.50	5-5V	18	2.02	12.40	25.00	5-B	51	0.71	21.20	15.00	4-5V
19	2.51	8.50	21.20	4-5V	50	0.96	14.00	13.50	4-D	19	1.89	8.50	16.00	5-5V	52	0.68	15.00	10.30	6-5V
19	2.53	9.50	24.00	4-C	51	0.94	16.00	15.00	4-5V	19	1.89	9.50	21.20	4-C	53	0.68	16.00	10.30	6-5V
20	2.36	10.60	25.00	5-3V	51	0.93	14.00	13.00	6-C	20	1.80	11.80	21.20	3-5V	53	0.68	16.00	10.30	6-5V
20	2.35	8.50	20.00	4-C	52	0.92	13.00	12.00	6-C	20	1.82	11.00	20.00	4-C	55	0.66	15.00	9.75	8-5V
21	2.31	9.25	21.20	3-5V	53	0.89	13.20	11.80	5-5V	21	1.70	12.50	21.20	3-5V	56	0.64	16.00	10.30	6-5V
21	2.27	11.00	25.00	5-B	53	0.90	20.00	18.00	4-C	21	1.71	10.50	18.00	4-C	58	0.62	21.20	13.20	5-5V
22	2.19	9.75	21.20	3-5V	54	0.89	14.00	12.50	5-5V	22	1.61	13.20	21.20	3-5V	59	0.60	14.00	8.50	8-5V
22	2.18	11.00	24.00	3-C	54	0.89	18.00	16.00	5-C	22	1.64	11.00	18.00	4-C	60	0.60	15.00	9.00	8-5V
23	2.07	10.30	21.20	3-5V	55	0.87	16.00	14.00	4-5V	23	1.56	10.30	16.00	4-5V	61	0.59	21.20	12.50	5-5V
23	2.11	9.50	20.00	5-C	55	0.88	16.00	14.00	5-C	23	1.52	10.50	16.00	4-C	62	0.58	16.00	9.25	8-5V
24	1.95	10.90	21.20	3-5V	56	0.86	14.00	12.00	6-C	24	1.47	10.90	16.00	4-5V	63	0.57	28.00	16.00	4-5V
24	2.02	12.40	25.00	5-B	57	0.84	14.00	11.80	5-5V	25	1.50	12.00	18.00	4-C	64	0.56	15.00	8.50	8-5V
25	1.89	8.00	15.00	5-5V	57	0.84	18.40	15.40	8-B	25	1.46	10.30	15.00	4-5V	65	0.55	21.20	11.80	5-5V
25	1.89	9.50	18.00	4-C	58	0.82	16.00	13.20	4-5V	25	1.45	11.00	16.00	5-C	67	0.53	28.00	15.00	4-5V
26	1.80	11.80	21.20	3-5V	58	0.83	14.50	12.00	5-D	26	1.36	14.00	18.00	4-C	68	0.53	16.00	8.50	8-5V
26	1.82	11.00	20.00	4-C	59	0.81	16.00	13.00	5-C	26	1.38	13.00	18.00	4-C	70	0.51	21.20	10.90	6-5V
27	1.80	10.60	19.00	6-3V	61	0.78	16.00	12.50	5-5V	27	1.33	16.00	21.20	3-5V	72	0.50	28.00	14.00	5-5V
27	1.80	10.00	18.00	4-C	63	0.75	21.20	16.00	4-5V	27	1.33	12.00	16.00	4-C	74	0.48	21.20	10.30	8-5V
28	1.70	12.50	21.20	3-5V	65	0.74	16.00	11.80	6-5V	28	1.28	9.75	12.50	5-5V					
28	1.71	10.50	18.00	5-C	66	0.72	15.00	10.90	6-5V	28	1.27	11.00	14.00	5-C					
29	1.62	15.40	25.00	5-B	68	0.71	21.20	15.00	4-5V	29	1.22	10.30	12.50	5-5V					
30	1.61	13.20	21.20	3-5V	69	0.69	14.00	9.75	8-5V	29	1.23	13.00	16.00	4-C					
30	1.61	12.40	20.00	6-B	70	0.68	15.00	10.30	6-5V	30	1.19	11.80	14.00	4-5V					
31	1.56	10.30	16.00	4-5V	72	0.66	21.20	14.00	4-5V	30	1.18	11.00	13.00	5-5V					
31	1.52	10.50	16.00	5-C	73	0.66	14.00	9.25	8-5V	31	1.14	12.00	15.00	4-C					
32	1.47	10.90	16.00	4-5V	74	0.65	15.00	9.75	6-5V	31	1.14	14.00	16.00	4-C					
32	1.50	12.00	18.00	4-C	75	0.64	14.00	9.00	8-5V	32	1.12	12.50	14.00	4-5V					
33	1.46	10.30	15.00	4-5V					4-5V	32	1.11	18.00	20.00	3-C					
33	1.45	11.00	16.00	4-C					8-5V	33	1.07	14.00	15.00	4-5V					
34	1.42	15.00	21.20	3-5V					6-5V	33	1.08	13.00	14.00	5-C					
34	1.38	13.00	18.00	4-C					8-5V	34	1.06	13.20	14.00	4-5V					
35	1.36	14.00	19.00	6-3V					5-5V	34	1.04	13.00	13.50	4-D					
35	1.36	18.40	25.00	4-B					8-5V										
36	1.32	10.60	14.00	8-3V					10-5V										
36	1.33	12.00	16.00	4-C					10-5V										
37	1.28	12.50	16.00	4-5V					6-5V										
37	1.29	14.00	18.00	5-C															

Note: These V-belt drives are designed for normal service and are based on recommended ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V & 5V); pitch diameters for B, C & D sheaves. All ratios based on P.D. Sheaves in shaded area represent speed up drives.

## V-belt Drives for TXT1215 & TXT1225 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

TXT1215										TXT1225									
Driven by 1750 RPM Motor					Driven by 1160 RPM Motor (cont.)					Driven by 870 RPM Motor					Driven by 1750 RPM Motor				
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
21	5.61	9.00	50.00	4.5V	25	3.17	10.60	33.50	10-3V	10	5.61	9.00	50.00	3.5V	10	7.13	7.10	50.00	4.5V
22	5.45	9.25	50.00	4.5V	25	3.06	12.40	38.00	8-8	11	5.17	9.75	50.00	3.5V	11	6.74	7.50	50.00	3.5V
23	5.17	9.75	50.00	3.5V	26	3.02	12.50	37.50	4.5V	12	4.89	10.30	50.00	3.5V	11	6.29	7.00	44.00	5.0V
24	4.89	10.30	50.00	4.5V	26	3.00	12.00	36.00	6-C	13	4.62	10.90	50.00	3.5V	12	5.94	8.50	50.00	3.5V
25	4.62	10.90	50.00	4.5V	27	2.85	13.20	37.50	4.5V	14	4.26	11.80	50.00	3.5V	12	5.87	7.50	44.00	5.0V
28	4.20	9.00	37.50	5.5V	28	2.74	10.30	28.00	6.5V	14	4.19	10.50	44.00	5-C	13	5.61	9.00	50.00	3.5V
28	4.19	10.50	44.00	6-C	28	2.77	13.00	36.00	5-C	15	4.02	12.50	50.00	3.5V	13	5.50	8.00	44.00	5.0V
29	4.09	9.25	37.50	5.5V	29	2.69	14.00	37.50	4.5V	15	4.00	11.00	44.00	5.5V	14	5.05	7.50	27.50	4.5V
29	4.00	11.00	44.00	5-C	30	2.57	14.00	36.00	6-C	16	3.81	10.30	37.50	4.5V	14	5.14	7.40	38.00	8-8
31	3.81	13.20	50.00	4.5V	31	2.51	15.00	37.50	4.5V	16	3.67	12.00	37.50	4.5V	15	4.73	8.00	37.50	4.5V
32	3.67	12.00	44.00	4.5V	32	2.42	12.50	30.00	4.8V	17	3.46	10.90	37.50	4.5V	15	4.80	7.50	36.00	5-C
33	3.59	14.00	50.00	4.5V	32	2.44	18.00	44.00	5-C	17	3.45	11.00	38.00	8-8	16	4.45	8.50	37.50	3.5V
34	3.46	10.90	37.50	5.5V	33	2.35	16.00	37.50	4.5V	18	3.20	11.80	37.50	4.5V	16	4.42	8.60	38.00	6-8
35	3.38	13.00	44.00	5-C	34	2.31	13.00	30.00	6-C	18	3.27	11.00	36.00	5-C	17	4.20	9.00	37.50	4.5V
37	3.20	11.80	37.50	5.5V	35	2.25	12.50	28.00	5.5V	19	3.02	12.50	37.50	4.5V	17	4.19	10.50	44.00	4-C
39	3.02	12.50	37.50	5.5V	35	2.25	16.00	36.00	5-C	19	3.00	12.00	36.00	5-C	18	3.88	9.75	37.50	3.5V
41	2.85	13.20	37.50	5.5V	36	2.14	14.00	30.00	6-C	20	2.85	13.20	37.50	4.5V	18	4.04	9.40	38.00	8-8
44	2.69	14.00	37.50	4.5V	37	2.13	13.20	28.00	6.5V	21	2.77	13.00	36.00	5-C	19	3.67	10.50	36.00	5.5V
45	2.58	10.90	28.00	6.5V	39	2.01	14.00	28.00	5.5V	23	2.57	15.00	37.50	4.5V	19	3.79	9.50	36.00	5-C
49	2.38	11.80	28.00	5.5V	42	1.87	15.00	28.00	5.5V	23	2.51	15.00	37.50	4.5V	21	3.43	10.50	36.00	4-C
54	2.16	14.00	30.00	4.8V	44	1.75	16.00	28.00	5.5V	23	2.51	14.00	36.00	5-C	22	3.17	10.60	33.50	6.3V
55	2.13	13.20	28.00	6.5V	46	1.71	13.20	22.40	4.8V	24	2.47	15.40	38.00	8-8	22	3.16	9.50	30.00	5-C
59	2.01	14.00	28.00	6.5V	48	1.61	13.20	21.20	6.5V	25	2.35	16.00	37.50	4.5V	23	3.13	9.00	28.00	4.5V
69	1.71	13.20	22.40	5.8V	51	1.52	14.00	21.20	5.5V	25	2.31	13.00	30.00	6-C	23	3.06	12.40	38.00	5.8
73	1.61	13.20	21.20	8.5V	52	1.50	15.00	22.40	4.8V	26	2.25	15.20	28.00	5.5V	24	3.02	12.50	37.50	3.5V
77	1.52	14.00	21.20	8.5V	54	1.45	13.20	19.00	5.8V	26	2.25	16.00	36.00	5-C	24	3.00	12.00	36.00	5-C
				5.8V	55	1.42	15.00	21.20	8.5V	27	2.13	13.20	28.00	5.5V	25	2.89	9.75	28.00	4.5V
				5.8V	57	1.37	13.20	18.00	5.8V	29	2.01	14.00	28.00	5.5V	25	2.86	10.50	30.00	5.5V
				6.8V	58	1.34	15.00	20.00	4.8V	31	1.87	15.00	28.00	5.5V	26	2.74	7.40	38.00	4.5V
				6.8V	59	1.33	16.00	21.20	6.5V	32	1.80	12.50	22.40	4.8V	26	2.73	11.00	30.00	5-C
				10-5V	60	1.29	13.20	17.00	5.8V	33	1.75	16.00	28.00	5.5V	27	2.58	10.90	28.00	4.5V
				10-5V	61	1.27	15.00	19.00	4.8V	34	1.71	13.20	22.40	4.8V	28	2.50	12.00	30.00	5-C
				10-5V	62	1.25	16.00	20.00	4.8V	36	1.61	13.20	21.20	6.5V	29	2.42	12.40	30.00	4.8V
				10-5V	64	1.21	13.20	16.00	8.5V	38	1.52	14.00	21.20	6.5V	30	2.38	11.80	28.00	4.5V
					65	1.20	15.00	18.00	4.8V	39	1.50	15.00	22.40	4.8V	31	2.31	13.00	30.00	5-C
					66	1.18	17.00	20.00	4.8V	40	1.45	13.20	19.00	5.8V	32	2.25	12.50	28.00	4.5V
					68	1.14	13.20	15.00	10.5V	41	1.42	15.00	21.20	6.5V	32	2.25	12.00	27.00	4.5V
					69	1.14	15.00	17.00	5.8V	42	1.41	16.00	22.40	4.8V	33	2.13	13.20	28.00	4.5V
					70	1.12	17.00	19.00	4.8V	43	1.36	14.00	19.00	4.8V	33	2.14	14.00	30.00	5.5V
					73	1.07	15.00	16.00	8.5V	44	1.33	16.00	21.20	6.5V	34	2.08	13.20	27.00	4.5V
					74	1.06	17.00	18.00	4.8V	45	1.29	13.20	17.00	8.5V	35	2.01	14.00	28.00	4.5V
					78	1.00	21.20	21.20	10.5V	46	1.27	15.00	19.00	4.8V	35	2.02	12.40	25.00	8.8
									10.5V	47	1.25	16.00	20.00	4.8V	36	1.95	10.90	21.20	5.5V
									8.5V	48	1.21	13.20	16.00	8.5V	40	1.79	14.00	25.00	8.3V
									10.5V	49	1.20	15.00	18.00	4.8V	42	1.70	12.50	21.20	5.5V
									4.8V	50	1.18	17.00	20.00	4.8V	44	1.61	13.20	21.20	5.5V
									5.8V	51	1.14	14.00	16.00	8.5V	46	1.53	12.50	19.00	4.8V
									10.5V	52	1.13	16.00	18.00	4.8V	47	1.52	14.00	21.20	4.5V
									4.8V	53	1.11	18.00	20.00	4.8V	48	1.47	10.90	16.00	6.5V
									5.8V	54	1.07	14.00	15.00	5.8V	49	1.45	12.50	18.00	4.8V
12	6.32	8.00	50.00	4.5V					10.5V	55	1.07	15.00	18.00	8.5V	51	1.38	10.90	15.00	6.5V
13	5.94	8.50	50.00	4.5V					5.8V	56	1.05	16.00	20.00	5.8V	52	1.37	13.20	18.00	4.8V
14	5.61	9.00	50.00	4.5V					5.8V	58	1.03	17.00	22.00	5.8V	53	1.32	12.00	17.00	4.8V
15	5.17	9.75	50.00	3.5V					5.8V	63	0.93	16.00	15.00	10.5V	55	1.29	13.20	17.00	4.8V
16	4.89	10.30	50.00	4.5V					5.8V	65	0.89	19.00	17.00	4.8V	58	1.21	13.20	16.00	6.5V
17	4.62	10.90	50.00	4.5V					5.8V	66	0.88	15.00	13.20	10.5V	67	1.06	13.20	14.00	6.5V
18	4.26	11.80	50.00	4.5V					5.8V	67	0.87	16.00	14.00	10.5V	71	1.00	13.20	13.20	8.5V
19	4.02	12.50	50.00	3.5V					8.8V	69	0.85	20.00	17.00	4.8V	75	0.95	13.20	12.50	8.5V
19	4.19	10.50	44.00	5-C					10.5V										
20	3.81	13.20	50.00	3.5V					5.8V										
21	3.67	10.30	37.50	4.5V					8.8V										
21	3.67	12.00	44.00	4-C					8.8V										
22	3.46	10.90	37.50	4.5V					8.8V										
23	3.39	15.00	50.00	3.5V					10.5V										
23	3.43	10.50	36.00	5-C					6.8V										
24	3.30	11.80	37.50	5.5V					6.8V										

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V, 5V & 8V); pitch diameters for B, C & D sheaves. All ratios based on P.D.  
Sheaves in shaded area represent speed up drives.



# V-belt Drives for TTX1225 and TDT1325 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driver sheave diameter and use V-belt drive selection tables.

TTX1225												TDT1325											
Driven by 1160 RPM Motor						Driven by 870 RPM Motor						Driven by 1750 RPM Motor						Driven by 1160 RPM Motor (cont.)					
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size				
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven					
10	4.89	10.30	50.00	3-5V	10	3.67	10.30	37.50	3-5V	10	6.74	7.50	50.00	4-5V	35	1.33	16.00	21.20	6-5V				
10	4.89	9.00	44.00	4-C	10	3.53	8.50	30.00	4-C	13	5.61	9.00	50.00	4-5V	36	1.29	13.20	17.00	5-8V				
11	4.20	9.00	37.50	3-5V	11	3.32	8.50	30.00	4-5V	14	4.89	10.30	50.00	3-5V	39	1.21	13.20	16.00	8-5V				
11	4.24	8.50	36.00	5-C	11	3.16	9.50	30.00	4-C	15	4.62	10.90	50.00	3-5V	41	1.14	14.00	16.00	8-5V				
12	4.09	9.25	37.50	3-5V	12	3.05	9.25	28.00	4-5V	17	4.20	9.00	37.50	5-5V	42	1.13	16.00	18.00	4-8V				
12	4.09	9.00	36.00	4-C	12	3.00	10.00	30.00	4-4V	18	4.02	12.50	50.00	3-5V	44	1.07	15.00	20.00	4-8V				
13	3.53	8.00	28.00	5-5V	13	2.73	11.00	30.00	6-8V	19	3.81	13.20	50.00	3-5V	47	1.00	21.20	21.20	6-5V				
13	3.60	10.00	36.00	4-5V	13	2.73	11.00	30.00	6-8V	19	3.81	13.20	50.00	3-5V	47	1.00	21.20	21.20	6-5V				
14	3.32	8.50	28.00	5-5V	14	2.58	10.90	28.00	4-5V	19	3.67	12.00	44.00	5-C	50	0.94	16.00	14.00	10-5V				
14	3.43	10.50	36.00	4-C	14	2.50	12.00	30.00	4-C	20	3.46	10.90	37.50	4-5V	54	0.87	16.00	14.00	10-5V				
15	3.13	9.00	28.00	4-5V	15	2.38	11.80	28.00	3-5V	21	3.38	13.00	44.00	5-C	57	0.82	16.00	13.20	10-5V				
15	3.06	12.40	38.00	5-8V	15	2.29	10.50	24.00	5-C	22	3.20	11.80	37.50	4-5V	59	0.80	20.00	16.00	5-8V				
17	2.74	10.30	28.00	4-5V	16	2.25	12.50	28.00	3-5V	23	3.02	12.50	37.50	4-5V	60	0.79	19.00	15.00	5-8V				
17	2.73	11.00	30.00	5-C	16	2.18	11.00	24.00	5-C	25	2.85	13.20	37.50	4-5V	61	0.78	18.00	14.00	6-8V				
18	2.58	10.90	28.00	4-5V	17	2.13	13.20	28.00	3-5V	26	2.69	14.00	37.50	4-5V	62	0.75	21.20	16.00	8-5V				
18	2.57	14.00	36.00	4-C	17	2.07	14.80	38.00	5-8V	31	2.29	13.20	30.00	4-8V	64	0.73	19.00	14.00	6-8V				
19	2.51	15.00	37.50	3-5V	18	2.01	14.80	28.00	3-5V	33	2.13	13.20	28.00	5-5V	66	0.71	21.20	15.00	10-5V				
19	2.50	12.00	30.00	4-C	18	2.00	12.00	24.00	5-C	35	2.01	14.00	28.00	5-5V									
20	2.36	10.60	25.00	8-3V	19	1.87	15.00	28.00	3-5V	41	1.71	13.20	22.40	5-8V	Driven by 870 RPM Motor								
20	2.31	13.00	30.00	4-C	19	1.85	13.00	24.00	4-C	44	1.61	13.20	21.20	8-5V	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★	Qty. & Belt Size					
21	2.25	12.50	28.00	3-5V	20	1.75	16.00	28.00	3-5V	46	1.52	13.20	20.00	5-8V	10	3.67	10.30	37.50	4-5V				
21	2.29	10.50	24.00	5-C	20	1.80	20.00	36.00	3-C	47	1.52	14.00	21.20	8-5V	10	3.43	10.50	36.00	5-C				
22	2.13	13.20	28.00	3-5V	21	1.70	12.50	21.20	4-5V	49	1.45	13.20	19.00	5-8V	11	3.17	10.60	33.50	8-3V				
22	2.18	11.00	24.00	5-C	21	1.71	14.00	24.00	4-C	52	1.36	14.00	19.00	5-8V	11	3.17	10.60	33.50	8-3V				
22	2.18	10.90	21.20	5-5V	22	1.61	13.20	21.20	4-5V	55	1.29	14.00	18.00	5-8V	12	2.89	9.75	28.00	5-5V				
24	2.00	12.00	24.00	5-C	22	1.63	14.00	30.00	6-8V	58	1.21	13.20	16.00	10-5V	12	2.89	9.75	28.00	5-5V				
25	1.87	15.00	28.00	4-5V	23	1.52	14.00	21.20	4-5V	62	1.07	14.00	15.00	10-5V	12	3.00	12.00	36.00	5-C				
25	1.85	13.00	24.00	5-C	23	1.54	13.00	20.00	5-C	66	1.01	14.00	15.00	10-5V	13	2.69	14.00	37.50	4-5V				
26	1.80	10.60	19.00	10-3V	24	1.40	15.00	24.00	4-C	67	1.06	13.20	14.00	10-5V	13	2.77	13.00	36.00	5-C				
26	1.80	20.00	36.00	4-C	25	1.42	15.00	21.20	4-5V						13	2.69	14.00	37.50	4-5V				
27	1.75	16.00	28.00	3-5V	25	1.38	13.00	18.00	5-C	Driven by 1160 RPM Motor						14	2.51	15.00	37.50	4-5V			
27	1.71	14.00	24.00	5-C	26	1.36	14.00	19.00	10-3V	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★	Qty. & Belt Size	15	2.31	13.00	30.00	5-C					
29	1.61	13.20	21.20	4-5V	26	1.33	18.00	24.00	4-C	10	4.73	8.00	37.50	5-5V	16	2.25	12.50	28.00	5-5V				
29	1.61	12.40	20.00	8-8V	27	1.33	16.00	21.20	4-5V	10	4.63	9.50	44.00	5-C	16	2.14	14.00	30.00	5-C				
30	1.57	14.00	22.00	4-C	28	1.28	12.50	16.00	6-5V	11	4.26	11.80	50.00	3-5V	17	2.07	13.20	28.00	5-5V				
30	1.52	14.00	21.20	5-5V	29	1.21	13.20	16.00	5-5V	11	4.19	10.50	44.00	5-C	17	2.07	13.20	28.00	5-5V				
31	1.50	16.00	24.00	5-C	31	1.14	14.00	16.00	5-5V	11	4.19	10.50	44.00	5-C	18	2.01	14.00	28.00	5-5V				
32	1.47	15.00	22.00	4-5V	33	1.07	15.00	16.00	5-5V	12	4.02	12.50	50.00	3-5V	19	1.87	15.00	28.00	5-5V				
33	1.42	15.00	21.20	4-5V	35	1.00	16.00	16.00	5-5V	13	3.67	10.30	37.50	4-5V	20	1.75	16.00	28.00	4-5V				
33	1.43	14.00	20.00	6-C	37	0.95	13.20	12.50	8-5V	14	3.46	10.90	37.50	4-5V	21	1.70	12.50	21.20	6-5V				
34	1.37	12.50	17.00	4-8V	38	0.93	15.00	14.00	6-5V	14	3.45	11.00	38.00	8-8V	22	1.61	13.20	21.20	6-5V				
34	1.38	13.00	18.00	6-C	40	0.84	16.00	14.00	6-5V	15	3.20	11.80	37.50	4-5V	23	1.52	14.00	21.20	6-5V				
36	1.32	21.20	28.00	3-5V	42	0.84	14.00	11.80	8-5V	16	3.02	12.40	38.00	8-8V	24	1.45	13.20	19.00	4-8V				
36	1.30	15.40	20.00	8-8V	43	0.82	13.20	10.90	8-5V	17	2.74	10.30	28.00	5-5V	25	1.42	15.00	21.20	6-5V				
39	1.21	13.20	16.00	6-5V	45	0.78	14.00	10.90	8-5V	18	2.57	14.00	36.00	5-C	26	1.36	14.00	19.00	4-8V				
41	1.14	13.20	15.00	6-5V	46	0.77	17.00	13.20	4-8V	19	2.51	15.00	37.50	4-5V	27	1.32	21.20	28.00	4-5V				
50	0.93	15.00	14.00	5-5V	47	0.75	21.20	16.00	5-5V	20	2.35	16.00	37.50	4-5V	28	1.27	15.00	19.00	4-8V				
53	0.89	13.20	11.80	8-5V	48	0.74	16.00	11.80	8-5V	21	2.25	16.00	36.00	5-C	29	1.21	13.20	16.00	8-5V				
54	0.88	15.00	13.20	8-5V	49	0.72	15.00	10.90	8-5V	22	2.13	13.20	28.00	5-5V	30	1.14	13.20	15.00	8-5V				
56	0.84	14.00	11.80	8-5V	50	0.71	21.20	15.00	6-5V	23	2.01	14.00	28.00	5-5V	31	1.11	18.00	20.00	4-8V				
57	0.83	15.00	12.50	8-5V	51	0.69	14.00	9.75	10-5V	24	1.87	15.00	28.00	5-5V	32	1.07	14.00	15.00	8-5V				
58	0.79	15.00	11.80	8-5V	52	0.68	16.00	10.90	8-5V	25	1.75	16.00	28.00	5-5V	33	1.07	21.20	21.20	6-5V				
61	0.73	14.00	10.90	8-5V	53	0.67	22.40	15.00	4-8V	26	1.61	13.20	28.00	5-5V	35	1.00	21.20	21.20	6-5V				
62	0.75	21.20	16.00	5-5V	54	0.66	21.20	15.00	4-8V	27	1.52	14.00	21.20	6-5V	37	0.94	18.00	17.00	4-8V				
64	0.74	16.00	11.80	8-5V	55	0.64	16.00	10.30	10-5V	28	1.45	13.20	28.00	5-5V	38	0.94	16.00	15.00	8-5V				
65	0.72	15.00	10.90	8-5V	57	0.61	15.00	9.25	10-5V	29	1.32	21.20	28.00	4-5V	39	0.89	19.00	17.00	4-8V				
67	0.71	21.20	15.00	5-5V	58	0.61	16.00	9.75	10-5V	22	2.14	14.00	30.00	6-C	40	0.88	15.00	13.20	10-5V				
68	0.69	19.00	13.20	5-8V	60	0.59	21.20	12.50	8-5V	23	2.01	14.00	28.00	5-5V	41	0.85	20.00	17.00	4-8V				
69	0.68	15.00	10.30	10-5V	62	0.57	28.00	16.00	6-5V	25	1.87	15.00	28.00	5-5V	42	0.83	15.00	12.50	10-5V				
71	0.66	21.20	14.00	8-5V	64	0.55	21.20	11.80	8-5V	26	1.77	21.20	37.50	4-5V	43	0.82	16.00	13.20	10-5V				
73	0.65	15.00	9.75	10-5V	66	0.53	21.20	10.90	6-5V	27	1.63	16.00	37.50	4-5V	44	0.82	16.00	12.50	4-8V				
...	...	...	...	...	69	0.51	21.20	10.90	10-5V	29	1.61	13.20	28.00	6-5V	45	0.78	16.00	12.50	10-5V				
...	...	...	...	...	71	0.50	28.00	14.00	10-5V	31	1.52	14.00	21.20	6-5V	46	0.76	22.40	17.00	4-8V				
...	...	...	...	...	73	0.48</																	

## V-belt Drives for TDT1425 and TDT1530

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

TDT1425														
Driven by 1750 RPM Motor					Driven by 1160 RPM Motor					Driven by 870 RPM Motor				
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven	
15	4.62	10.90	50.00	5-5V	10	4.62	10.90	50.00	4-5V	10	3.59	14.00	50.00	4-5V
17	4.26	11.80	50.00	5-5V	11	4.26	11.80	50.00	4-5V	10	3.38	13.00	44.00	5-C
19	3.81	13.20	50.00	5-5V	12	4.02	12.50	50.00	4-5V	11	3.14	16.00	50.00	4-5V
20	3.59	14.00	50.00	5-5V	13	3.59	14.00	50.00	4-5V	11	3.14	14.00	44.00	5-C
23	3.06	13.20	40.00	4-8V	14	3.35	15.00	50.00	4-5V	12	2.85	13.20	37.50	5-5V
24	2.88	14.00	40.00	4-8V	14	3.38	13.00	44.00	6-C	13	2.69	14.00	37.50	5-5V
25	2.85	13.20	37.50	6-5V	15	3.14	16.00	50.00	4-5V	14	2.51	15.00	37.50	5-5V
26	2.69	14.06	37.50	6-5V	16	2.85	13.20	37.50	5-5V	15	2.35	16.00	37.50	5-5V
31	2.29	13.20	30.00	5-8V	17	2.69	14.00	37.50	5-5V	16	2.13	13.20	28.00	8-5V
33	2.13	13.20	28.00	8-5V	19	2.51	15.00	37.50	5-5V	17	2.01	14.00	28.00	8-5V
35	2.01	14.00	28.00	8-5V	20	2.35	16.00	37.50	5-5V	19	1.87	15.00	28.00	8-5V
41	1.71	13.20	22.40	8-8V	22	2.13	13.20	28.00	8-5V	20	1.75	16.00	28.00	6-5V
..	..	..	..	..	23	2.01	14.00	28.00	8-5V	21	1.71	13.20	22.40	5-8V
..	..	..	..	..	25	1.87	15.00	28.00	8-5V	22	1.61	13.20	21.20	10-5V
..	..	..	..	..	26	1.77	16.00	28.00	8-5V	23	1.52	14.00	21.20	5-8V
..	..	..	..	..	27	1.75	16.00	28.00	8-5V	25	1.42	15.00	21.20	5-8V
..	..	..	..	..	28	1.67	18.00	30.00	4-8V	26	1.33	16.00	21.20	8-5V
..	..	..	..	..	29	1.61	13.20	21.20	10-5V	27	1.32	21.20	28.00	6-5V
..	..	..	..	..	30	1.59	19.00	30.00	4-8V	28	1.25	18.00	22.40	4-8V
..	..	..	..	..	31	1.50	15.00	22.40	5-8V	29	1.19	16.00	19.00	5-8V
..	..	..	..	..	33	1.42	15.00	21.20	5-8V	..	..	..	..	..
..	..	..	..	..	35	1.33	16.00	21.20	5-8V	..	..	..	..	..
..	..	..	..	..	37	1.25	17.00	21.20	5-8V	..	..	..	..	..
..	..	..	..	..	38	1.25	18.00	22.40	5-8V	..	..	..	..	..
..	..	..	..	..	39	1.20	15.00	18.00	6-8V	..	..	..	..	..
..	..	..	..	..	40	1.18	18.00	21.20	5-8V	..	..	..	..	..
..	..	..	..	..	41	1.14	15.00	17.00	8-8V	..	..	..	..	..
..	..	..	..	..	42	1.11	18.00	20.00	5-8V	..	..	..	..	..

TDT1530														
Driven by 1750 RPM Motor					Driven by 1160 RPM Motor					Driven by 870 RPM Motor				
Out-put RPM	V-belt Drive Ratio	Sheave Diameters★		Qty & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters★		Qty & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters★		Qty & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven	
14	4.06	13.20	53.00	5-8V	9	4.06	13.20	53.00	4-8V	9	3.14	16.00	50.00	6-5V
15	3.81	13.20	50.00	8-5V	10	3.81	13.20	50.00	8-5V	10	2.85	13.20	37.50	8-5V
16	3.59	14.00	50.00	8-5V	11	3.35	15.00	50.00	6-5V	11	2.69	14.00	37.50	8-5V
19	3.06	13.20	40.00	6-8V	12	3.14	16.00	50.00	6-5V	12	2.35	16.00	37.50	8-5V
20	2.85	13.20	37.50	10-5V	13	2.85	13.20	37.50	8-5V	13	2.24	18.00	40.00	4-8V
21	2.69	14.00	37.50	10-5V	14	2.69	14.00	37.50	8-5V	14	2.01	15.00	30.00	5-8V
					15	2.51	15.00	37.50	8-5V	15	1.87	15.00	28.00	10-5V
					16	2.35	16.00	37.50	8-5V					
					17	2.24	18.00	40.00	4-8V					
					18	2.12	19.00	40.00	4-8V					
					19	2.01	15.00	30.00	6-8V					
					20	1.87	15.00	28.00	10-5V					
					21	1.77	21.20	37.50	8-5V					
					22	1.75	16.00	28.00	10-5V					

**Note:** These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor—refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYNA-V (3V, 5V & 8V); pitch diameters for B, C & D sheaves. All ratios based on P.D.  
Sheaves in shaded area represent speed up drives.



# V-belt Drives for TXT105, SCXT105; TXT205, SCXT 205 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driver sheave diameter and use V-belt drive selection tables.

TXT105 and SCXT105 Reducers												TXT205 and SCXT205 Reducers											
Driven by 1750 RPM Motor						Driven by 1160 RPM Motor						Driven by 1750 RPM Motor						Driven by 1160 RPM Motor					
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size				
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven					
100	3.12	3.40	10.60	2-A	100	2.08	3.35	6.90	2-3V	100	3.31	3.20	10.60	3-A	100	2.19	3.00	6.50	4-3V				
102	3.06	2.65	8.00	2-3V	100	2.06	3.40	7.00	2-A	104	3.20	3.35	10.60	2-3V	100	2.20	5.00	11.00	2-B				
102	3.07	6.00	18.40	1-B	103	2.01	5.30	10.60	1-3V	104	3.17	5.80	18.40	1-B	108	2.04	6.90	14.00	1-3V				
108	2.89	2.80	8.00	2-3V	103	2.00	3.20	6.40	2-A	112	2.97	4.75	14.00	2-3V	108	2.04	5.20	10.60	2-A				
108	2.88	5.20	15.00	1-A	110	1.88	3.00	5.60	3-3V	112	2.94	3.60	10.60	2-A	117	1.88	3.00	5.60	4-3V				
118	2.63	2.65	6.90	2-3V	110	1.87	4.60	8.60	1-B	120	2.77	6.90	10.60	1-3V	117	1.88	3.40	6.40	3-A				
118	2.65	4.00	10.60	2-3V	118	1.75	8.00	14.00	1-3V	120	2.76	5.60	15.40	1-B	125	1.75	8.00	14.00	2-3V				
129	2.41	3.35	8.00	2-3V	118	1.75	8.00	14.00	1-3V	120	2.76	5.60	15.40	1-B	125	1.75	8.00	14.00	2-3V				
129	2.41	4.40	10.60	2-A	129	1.61	5.00	6.40	2-3V	129	2.56	3.15	8.00	4-3V	134	1.64	6.50	10.60	2-3V				
134	2.32	3.00	6.90	3-3V	129	1.60	4.00	5.60	3-A	137	2.56	3.20	8.00	4-A	134	1.64	6.50	10.60	2-3V				
134	2.33	3.00	7.00	3-A	134	1.54	4.50	6.90	2-3V	137	2.41	4.40	10.60	3-A	142	1.54	6.90	10.60	2-3V				
139	2.24	4.75	10.60	2-3V	134	1.54	4.80	7.40	2-B	140	2.37	4.50	10.60	2-3V	142	1.54	6.90	10.60	2-3V				
139	2.25	4.00	9.00	2-A	141	1.46	4.12	6.00	3-3V	140	2.37	3.80	9.00	3-A	150	1.46	4.12	6.00	3-3V				
150	2.08	3.35	6.90	2-3V	141	1.47	6.40	9.40	1-B	150	2.21	3.65	8.00	3-3V	150	1.46	4.00	7.00	3-A				
150	2.08	7.40	15.40	1-A	150	1.38	3.65	5.00	3-3V	150	2.21	4.80	10.60	2-A	160	1.37	4.75	6.50	3-3V				
160	1.95	4.12	8.00	2-3V	150	1.38	4.20	5.80	2-A	159	2.08	3.15	6.50	4-3V	160	1.38	4.80	6.60	2-B				
160	1.94	3.60	7.00	2-A	155	1.34	6.00	8.00	2-3V	159	2.08	7.40	15.40	1-B	166	1.32	10.60	14.00	1-3V				
166	1.88	5.00	5.60	3-3V	155	1.33	4.20	5.60	2-A	169	1.95	4.12	8.00	2-3V	166	1.32	5.00	6.60	2-B				
166	1.88	5.00	9.40	3-3V	160	1.29	4.12	5.30	2-3V	169	1.96	4.60	9.00	2-A	173	1.27	4.75	6.00	3-3V				
173	1.80	3.35	6.00	2-3V	160	1.29	3.40	4.40	3-A	176	1.88	3.00	5.60	4-3V	173	1.27	4.75	6.00	3-3V				
173	1.80	3.00	5.40	3-A	166	1.25	4.50	5.60	2-3V	176	1.88	3.00	5.60	4-3V	173	1.27	4.75	6.00	3-3V				
178	1.75	8.00	14.00	1-3V	166	1.24	12.40	15.40	1-B	176	1.88	6.60	12.40	1-B	180	1.22	4.12	5.00	3-3V				
178	1.75	3.20	5.60	3-A	178	1.16	6.90	8.00	1-3V	184	1.80	3.35	6.00	3-3V	180	1.22	4.12	5.00	3-3V				
186	1.68	3.00	5.00	3-3V	178	1.16	7.40	8.60	1-B	184	1.80	5.00	9.00	2-A	189	1.16	7.40	8.60	2-3V				
186	1.68	5.60	9.40	1-B	186	1.11	4.50	5.00	2-3V	197	1.68	4.12	6.90	3-3V	189	1.16	7.40	8.60	2-3V				
196	1.59	5.35	5.30	2-3V	186	1.11	3.60	4.00	3-A	197	1.68	5.60	9.40	2-B	196	1.12	5.00	5.60	3-3V				
196	1.59	5.40	8.60	1-B	191	1.08	6.00	6.50	2-3V	206	1.61	5.00	8.00	2-3V	196	1.12	5.00	5.60	3-3V				
206	1.51	5.30	8.00	1-3V	191	1.08	4.80	5.20	2-B	206	1.61	4.60	7.40	3-B	205	1.07	5.60	6.00	3-3V				
206	1.52	6.20	9.40	1-B	196	1.06	4.50	4.75	2-3V	215	1.54	4.50	6.90	3-3V	205	1.07	5.60	6.00	3-3V				
215	1.45	4.50	6.50	2-3V	196	1.06	6.50	8.00	3-A	215	1.54	4.80	7.40	2-A	219	1.00	6.50	6.50	2-3V				
215	1.45	6.20	9.00	1-A	207	1.00	6.50	8.00	1-3V	226	1.46	4.12	6.00	3-3V	219	1.00	9.40	9.40	1-B				
225	1.38	5.00	6.90	1-3V	207	1.00	5.80	5.80	1-B	226	1.46	4.60	8.20	2-A	231	0.95	5.00	4.75	3-3V				
225	1.39	6.20	8.60	1-B	217	0.95	3.15	3.00	4-3V	239	1.38	5.00	6.90	2-3V	231	0.95	4.00	3.80	5-A				
236	1.32	10.60	14.00	1-3V	217	0.95	4.00	3.80	3-A	248	1.34	4.50	6.00	3-3V	238	0.92	5.20	4.80	3-B				
236	1.32	5.00	6.60	2-B	225	0.92	3.65	3.35	3-3V	248	1.34	4.50	6.00	3-3V	238	0.92	5.20	4.80	3-B				
246	1.27	4.75	6.00	2-3V	225	0.92	7.40	6.80	1-B	254	1.30	5.00	6.50	2-3V	244	0.90	5.00	4.50	4-3V				
246	1.26	6.80	8.60	1-B	232	0.89	5.60	5.00	2-3V	254	1.30	4.60	6.00	3-A	244	0.90	5.00	4.50	4-3V				
254	1.23	3.50	6.50	2-3V	232	0.89	7.40	6.60	2-B	265	1.25	4.50	5.60	3-3V	253	0.87	6.90	6.00	2-3V				
254	1.23	4.40	5.40	3-A	238	0.87	6.90	6.00	2-3V	265	1.25	4.80	6.00	2-B	267	0.82	5.00	4.12	4-3V				
264	1.18	4.50	5.30	2-3V	238	0.87	6.00	5.20	2-B	280	1.18	4.75	5.60	3-3V	267	0.82	5.00	4.12	4-3V				
264	1.18	5.60	6.60	2-3V	248	0.83	6.00	5.00	2-3V	280	1.18	4.40	5.20	3-A	274	0.80	6.00	4.80	3-3V				
275	1.13	5.30	6.00	2-3V	248	0.83	6.00	5.00	2-3V	285	1.16	5.60	6.50	2-3V	274	0.80	6.00	4.80	3-3V				
275	1.13	6.00	6.80	2-B	255	0.81	6.90	5.60	2-3V	285	1.16	7.40	8.60	1-B	286	0.77	6.90	5.30	2-3V				
285	1.09	4.12	4.50	3-3V	255	0.81	7.40	6.00	2-B	295	1.12	5.00	6.50	2-3V	286	0.77	6.90	5.30	2-3V				
285	1.09	8.60	9.40	1-B	269	0.77	6.50	5.00	2-3V	295	1.12	6.60	7.40	2-B	298	0.74	19.00	14.00	1-3V				
296	1.05	4.75	5.00	2-3V	269	0.77	8.60	6.60	1-B	312	1.06	5.00	3.30	2-3V	298	0.74	6.80	5.00	2-B				
296	1.05	3.80	4.00	3-A	281	0.74	19.00	14.00	1-3V	312	1.06	6.40	5.80	2-B	304	0.72	9.60	5.00	3-3V				
312	1.00	4.50	4.50	2-3V	281	0.74	6.80	5.00	2-B	331	1.00	4.12	4.12	3-3V	304	0.72	6.80	6.20	2-B				
312	1.00	6.20	6.20	1-B	296	0.70	8.00	5.60	2-3V	331	1.00	8.60	8.60	1-B	314	0.70	8.00	5.60	2-3V				
327	0.95	4.20	4.75	3-A	296	0.70	8.60	6.00	2-3V	349	0.95	5.00	4.75	3-3V	314	0.70	6.00	4.20	4-A				
328	0.95	5.00	5.60	2-3V	313	0.66	9.00	5.30	1-3V	349	0.95	5.80	3.60	4-A	320	0.69	5.00	3.65	4-3V				
334	0.93	6.00	5.60	2-3V	313	0.66	9.40	6.20	1-B	355	0.93	6.00	5.60	2-3V	320	0.69	7.00	4.80	3-A				
334	0.93	6.00	5.60	2-A	332	0.62	8.00	5.00	2-3V	355	0.93	6.00	5.60	2-3V	329	0.67	5.00	3.35	4-3V				
341	0.91	4.50	4.12	2-3V	332	0.62	9.00	5.60	2-A	362	0.91	4.50	4.12	3-3V	329	0.67	6.00	4.00	4-A				
341	0.91	4.90	8.60	1-B	338	0.61	10.60	6.50	1-3V	362	0.91	9.40	8.60	1-B	338	0.65	5.60	3.65	4-3V				
349	0.89	5.60	5.00	2-3V	338	0.61	15.40	9.40	1-B	374	0.88	4.12	3.65	4-3V	338	0.65	7.40	4.80	2-B				
349	0.89	7.40	6.60	1-B	370	0.57	9.40	5.00	2-3V	374	0.88	5.20	4.60	2-B	349	0.63	5.30	3.35	4-3V				
360	0.87	4.12	2.3V	362	0.57	14.00	8.00	1-3V	375	0.88	6.00	5.30	2-3V	349	0.63	7.00	4.40	3-A					
360	0.86	7.40	6.40	1-B	370	0.56	10.60	8.60	1-B	375	0.88	6.80	6.00	2-3V	363	0.61	6.00	3.65	3-3V				
368	0.85	3.00	4.50	2-3V	378	0.55	15.40	8.00	1-3V	384	0.86	6.00	6.90	2-3V	363	0.61	6.00	3.65	3-3V				
368	0.85	5.20	4.40	2-A	378	0.55	10.60	5.80	2-A	384	0.86	5.20	5.00	2-B	385	0.57	14.00	8.00	1-3V				
384	0.81	8.00	6.50	1-3V	379	0.55	11.00	6.00	1-B	391	0.85	5.60	5.00	2-B	385	0.57	14.00	8.00	1-3V				
384	0.81	7.40	6.00	1-B	387	0.53	12.00	6.40	2-A	391	0.85	5.20	4.40	3-A	393	0.57	6.00	3.40	4-A				
394	0.79	8.60	6.80	1-B	392	0.53	11.00	5.80	1-B	397	0.83	4.80	4.										

# V-belt Drives for TXT305, SCXT305; TXT405, SCXT 405 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driver sheave diameter and use V-belt drive selection tables.

TXT305 and SCXT305 Reducers										TXT405 and SCXT405 Reducers									
Driven by 1750 RPM Motor					Driven by 1160 RPM Motor					Driven by 1750 RPM Motor					Driven by 1160 RPM Motor				
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven	
100	3.13	4.50	14.00	2-3V	102	2.04	6.90	14.00	2-3V	100	3.33	5.40	18.00	4-A	100	2.21	4.80	10.60	6-A
100	3.12	4.80	15.00	2-A	102	2.04	5.40	11.00	3-8	100	3.33	6.00	20.00	3-B	100	2.20	8.20	18.00	3-A
105	2.97	4.75	14.00	3-3V	109	1.90	5.60	10.60	3-3V	110	3.01	7.10	21.20	2-5V	110	2.01	5.30	10.60	4-3V
105	2.97	6.20	18.40	2-8	109	1.90	5.80	11.00	2-8	110	3.03	6.60	20.00	2-8	110	2.00	6.00	12.00	4-A
111	2.82	5.00	14.00	2-3V	116	1.79	4.50	8.00	4-3V	120	2.77	6.90	19.00	2-3V	120	1.83	8.20	15.00	3-B
111	2.81	6.40	18.00	2-A	116	1.79	4.80	8.60	3-8	120	2.78	5.40	15.00	4-A	120	1.83	6.00	11.00	3-B
118	2.66	5.30	14.00	2-3V	122	1.69	4.75	8.00	3-3V	129	2.57	7.00	18.00	3-A	130	1.69	4.75	8.00	5-3V
118	2.66	5.80	15.00	2-3V	122	1.70	10.60	18.00	2-A	129	2.58	4.80	12.40	3-8	130	1.70	10.60	18.00	3-A
121	2.59	4.12	10.60	3-3V	129	1.61	5.00	8.00	3-3V	138	2.41	6.40	15.40	2-8	140	1.57	8.00	12.50	2-5V
121	2.58	4.80	12.40	2-8	129	1.61	4.60	7.40	3-8	138	2.40	7.50	18.00	2-C	140	1.58	5.20	8.20	5-A
124	2.51	5.60	14.00	2-3V	135	1.54	4.50	6.90	4-3V	146	2.27	7.10	16.00	2-5V	150	1.47	9.00	13.20	2-5V
124	2.52	4.20	10.60	4-A	135	1.54	5.60	8.60	2-8	146	2.27	11.00	25.00	2-8	150	1.46	5.60	8.20	6-A
131	2.38	8.00	19.00	1-3V	142	1.46	4.75	6.90	3-3V	155	2.15	7.50	16.00	2-5V	160	1.38	7.50	10.30	2-5V
131	2.38	5.20	12.40	2-8	142	1.45	4.40	6.40	4-A	155	2.14	5.60	12.00	5-A	160	1.38	8.00	11.00	2-C
139	2.24	4.75	10.60	3-3V	150	1.38	5.00	6.90	3-3V	163	2.04	5.20	10.60	5-A	170	1.29	8.20	10.60	4-A
139	2.25	4.00	9.00	4-A	150	1.38	6.80	9.40	2-8	163	2.04	5.40	11.00	4-8	170	1.30	15.40	20.00	2-B
147	2.13	5.00	10.60	2-3V	155	1.34	4.50	6.00	4-3V	170	1.96	4.60	9.40	6-A	180	1.22	8.00	9.75	2-5C
147	2.12	5.00	10.60	3-A	155	1.33	4.80	6.40	3-8	170	1.96	4.80	9.40	6-A	180	1.22	9.00	11.00	2-C
156	2.01	5.30	10.60	2-3V	159	1.30	5.00	6.50	3-3V	178	1.87	7.10	13.20	2-5V	190	1.16	5.60	6.50	5-3V
156	2.00	6.00	12.00	2-A	159	1.30	4.60	6.00	3-8	178	1.87	7.50	14.00	2-C	190	1.16	6.90	8.00	4-3V
160	1.95	4.12	8.00	3-3V	164	1.27	4.75	6.00	3-3V	185	1.80	5.00	9.00	5-A	201	1.09	6.40	7.00	6-A
160	1.96	4.80	9.40	2-8	164	1.26	4.60	5.80	3-8	185	1.79	4.80	8.60	4-8	201	1.10	8.20	9.00	5-A
164	1.90	5.60	10.60	2-3V	169	1.23	5.30	6.50	3-3V	192	1.73	5.20	9.00	5-A	210	1.05	10.00	10.50	2-C
165	1.90	5.80	11.00	2-8	169	1.22	5.40	6.60	3-8	192	1.73	7.50	13.00	2-C	210	1.05	10.50	11.00	2-C
174	1.80	10.60	19.00	1-3V	175	1.18	4.75	5.60	4-3V	201	1.65	8.50	14.00	2-5V	220	1.00	10.60	10.60	3-3V
174	1.79	4.80	8.60	2-8	175	1.19	5.40	6.40	3-A	201	1.66	6.40	10.60	5-A	220	1.00	14.00	14.00	2-3V
178	1.75	8.00	14.00	1-3V	180	1.15	6.00	6.90	3-3V	208	1.60	7.50	12.00	2-C	231	0.95	10.60	10.60	2-C
179	1.75	4.00	7.00	4-A	180	1.15	5.20	6.00	3-A	208	1.60	10.00	16.00	2-C	231	0.95	11.00	10.50	2-C
186	1.68	4.12	6.90	3-3V	185	1.12	5.00	6.60	3-3V	216	1.54	6.90	10.60	3-3V	240	0.92	9.25	8.50	2-5V
186	1.68	7.40	12.40	1-8	185	1.12	5.00	5.60	3-8	216	1.54	5.60	8.60	4-8	240	0.92	12.00	11.00	2-C
195	1.61	5.00	8.00	2-3V	191	1.08	6.00	6.50	3-3V	224	1.48	8.00	11.80	2-5V	250	0.88	8.50	7.50	2-5V
195	1.60	4.00	6.40	4-A	191	1.09	4.60	5.00	3-8	224	1.48	5.80	8.60	4-8	250	0.88	8.50	7.50	3-C
203	1.54	6.90	10.60	2-3V	195	1.06	5.00	5.30	3-3V	232	1.43	5.60	8.00	4-3V	260	0.85	10.90	9.25	2-5V
203	1.54	4.80	7.40	3-8	195	1.06	6.20	6.60	2-8	232	1.43	9.25	13.20	2-5V	260	0.85	13.00	11.00	2-C
206	1.51	5.30	8.00	3-3V	207	1.00	8.00	8.00	3-3V	240	1.39	6.20	8.60	4-8	272	0.81	9.25	7.50	2-5V
206	1.52	6.20	9.40	2-8	207	1.00	8.60	8.60	2-8	240	1.38	6.80	9.40	3-8	272	0.81	10.50	8.50	2-C
213	1.47	6.40	9.40	2-8	220	0.94	8.50	8.50	2-5V	249	1.34	6.00	8.00	4-3V	280	0.79	9.40	7.10	2-5V
214	1.46	7.10	10.30	2-5V	220	0.94	8.50	8.50	2-C	249	1.33	9.00	12.00	4-A	280	0.79	9.40	7.40	3-B
218	1.43	5.60	8.00	3-3V	226	0.92	9.25	8.50	2-5V	258	1.29	8.50	10.90	2-5V	291	0.76	14.00	10.60	3-3V
218	1.43	6.00	8.60	2-8	226	0.91	9.40	8.60	2-8	258	1.29	7.00	9.00	4-A	291	0.76	12.40	9.40	3-B
230	1.36	14.00	19.00	1-3V	233	0.89	9.00	8.00	2-5V	266	1.25	12.00	15.00	3-A	301	0.73	10.90	8.00	2-5V
230	1.36	7.00	9.50	2-C	233	0.89	9.00	8.00	2-C	266	1.25	8.00	11.00	2-C	301	0.73	13.00	9.50	2-C
236	1.32	10.60	14.00	2-3V	240	0.86	9.25	8.00	2-5V	272	1.22	8.00	9.75	2-5V	318	0.69	12.40	8.60	3-B
236	1.32	5.60	7.40	3-8	241	0.86	8.60	7.40	2-8	272	1.22	9.00	11.00	2-C	318	0.69	13.00	9.00	2-C
246	1.27	7.10	9.00	2-5V	249	0.83	8.50	7.10	2-5V	282	1.18	9.25	10.90	2-5V	324	0.68	13.20	9.00	2-5V
246	1.27	7.40	9.40	2-8	249	0.83	9.00	7.50	2-C	282	1.18	9.00	10.60	4-A	324	0.68	16.00	10.90	2-5V
253	1.23	6.00	7.40	2-8	256	0.81	9.25	7.50	2-5V	290	1.15	9.00	10.30	2-5V	330	0.67	12.00	8.00	2-C
254	1.23	6.50	8.00	2-3V	256	0.81	10.50	8.50	2-C	290	1.15	10.30	11.80	2-5V	330	0.67	18.00	12.00	2-C
260	1.20	7.10	8.50	2-5V	263	0.79	9.00	7.10	2-5V	297	1.12	9.75	10.90	2-5V	340	0.65	10.90	7.10	2-5V
260	1.20	7.50	9.00	2-C	263	0.79	9.40	7.40	2-8	297	1.12	8.50	9.50	2-C	340	0.65	15.00	9.75	2-5V
269	1.16	6.90	8.00	2-3V	268	0.77	10.60	8.20	3-A	304	1.09	6.40	7.00	6-A	352	0.63	12.00	7.50	3-C
269	1.16	7.40	8.60	2-8	270	0.77	9.75	7.50	2-5V	304	1.09	8.60	9.40	3-8	352	0.63	16.00	10.00	2-C
277	1.13	7.10	8.00	2-5V	272	0.76	12.40	9.40	2-8	312	1.06	8.00	8.50	2-5V	363	0.61	16.00	9.75	2-5V
277	1.13	11.00	12.40	1-8	272	0.76	14.00	10.60	2-3V	312	1.07	7.50	8.00	3-C	363	0.61	14.00	8.50	2-C
294	1.06	8.00	8.50	2-C	281	0.74	19.00	14.00	1-3V	316	1.05	9.50	10.00	2-C	369	0.60	15.00	9.00	2-5V
296	1.06	7.10	7.50	2-5V	285	0.73	11.00	8.00	2-C	316	1.05	10.00	10.50	2-C	369	0.60	12.40	7.40	3-B
330	0.95	7.50	7.10	2-5V	299	0.69	12.40	8.60	2-8	332	1.00	10.90	10.90	2-5V	378	0.58	12.00	7.00	5-A
332	0.94	8.50	8.00	2-C	302	0.69	10.30	7.10	2-5V	332	1.00	7.00	7.00	5-A	378	0.58	10.50	9.50	2-5V
342	0.91	9.40	8.60	2-8	311	0.67	18.00	12.00	2-A	350	0.95	9.75	9.25	2-5V	383	0.58	16.00	9.25	2-5V
343	0.91	9.00	8.20	2-A	314	0.66	10.60	7.00	3-A	350	0.95	10.00	9.50	2-C	385	0.57	14.00	8.00	2-C
363	0.86	8.60	7.40	2-8	345	0.60	15.00	9.00	2-A	360	0.92	9.75	9.00	2-5V	390	0.56	12.50	7.10	2-5V
366	0.85	11.00	9.40	2-8	346	0.60	18.40	11.00	1-8	360	0.92	11.80	10.90	2-5V	390	0.56	13.20	7.50	2-5V
368	0.85	10.60	9.00	2-C	372	0.56	19.00	10.60	1-3V	375	0.89	8.00	7.10	2-					



# V-belt Drives for TXT505, SCXT505; TXT605, SCXT605 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

TXT505 and SCXT505 Reducers												TXT605 and SCXT605 Reducers											
Driven by 1750 RPM Motors						Driven by 1160 RPM Motor						Driven by 1750 RPM Motor						Driven by 1160 RPM Motor					
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size				
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven					
100	3.08	5.00	15.40	4-B	100	2.04	5.40	11.00	5-B	101	3.05	9.25	28.00	2-5V	102	2.01	7.50	15.00	3-5V				
102	3.03	7.10	21.20	2-5V	102	2.01	5.30	10.60	5-3V	101	3.07	6.00	18.40	5-B	102	2.02	9.00	18.00	5-A				
102	3.03	6.60	20.00	3-B	102	2.00	6.20	12.40	4-B	108	2.85	7.50	21.20	2-5V	108	1.89	8.50	16.00	3-5V				
110	2.82	5.00	14.00	4-3V	109	1.87	7.10	13.20	2-5V	108	2.85	5.40	15.40	5-B	108	1.89	9.50	18.00	2-C				
110	2.81	6.40	18.00	4-A	109	1.88	6.60	12.40	4-B	116	2.66	5.30	14.00	6-3V	114	1.80	10.60	19.00	3-3V				
116	2.66	5.30	14.00	5-3V	118	1.74	9.25	16.00	2-5V	116	2.66	9.40	25.00	3-3V	114	1.79	8.60	15.40	4-B				
116	2.66	5.80	15.40	4-B	118	1.73	7.50	13.00	3-C	131	2.36	10.60	25.00	3-3V	122	1.67	7.10	11.80	4-5V				
130	2.38	8.00	19.00	3-3V	126	1.63	9.25	15.00	2-5V	131	2.35	8.50	20.00	3-C	122	1.67	11.00	18.40	4-5V				
130	2.38	5.20	12.40	5-B	126	1.62	15.40	25.00	2-B	136	2.27	7.10	16.00	3-5V	126	1.63	9.25	15.00	3-5V				
136	2.27	7.10	16.00	2-5V	133	1.54	6.90	10.60	5-3V	136	2.26	6.80	15.40	5-B	126	1.62	15.40	25.00	2-B				
136	2.26	6.80	15.40	3-B	133	1.54	13.00	20.00	2-C	141	2.19	9.75	21.20	2-5V	136	2.26	6.80	15.40	5-B				
144	2.15	7.50	16.00	2-5V	140	1.46	7.10	10.30	3-5V	141	2.20	8.20	18.00	6-A	138	1.48	12.40	14.40	6-B				
144	2.14	5.80	12.40	4-B	140	1.46	8.20	12.00	5-A	149	2.07	10.30	21.20	2-5V	145	1.42	15.00	21.20	2-5V				
152	2.04	6.90	14.00	4-3V	149	1.38	7.50	13.00	3-5V	149	2.07	6.00	12.40	6-B	145	1.42	10.60	15.00	6-A				
152	2.04	5.40	11.00	5-B	149	1.38	8.00	11.00	3-C	158	1.95	10.90	21.20	2-5V	150	1.37	8.00	10.90	4-5V				
158	1.95	10.90	21.20	2-5V	154	1.33	8.00	10.60	5-3V	158	1.96	9.40	18.40	4-B	150	1.37	9.50	13.00	3-C				
158	1.96	9.40	18.40	3-B	154	1.33	9.00	12.00	5-A	165	1.87	7.10	13.20	3-5V	156	1.31	9.00	11.80	3-5V				
165	1.87	7.10	13.20	3-5V	159	1.28	9.75	12.50	2-5V	165	1.87	7.50	14.00	4-C	156	1.31	8.00	10.50	4-C				
165	1.88	6.40	12.00	6-A	159	1.29	14.00	18.00	2-C	172	1.80	10.60	19.00	3-3V	161	1.27	7.10	9.00	4-5V				
172	1.80	10.60	19.00	3-3V	167	1.22	9.00	11.00	3-C	172	1.79	8.60	15.40	4-B	161	1.27	7.40	9.40	6-B				
172	1.79	8.60	15.40	3-B	168	1.22	10.30	12.50	2-5V	178	1.74	9.25	16.00	2-5V	173	1.18	9.25	19.00	3-5V				
178	1.74	9.25	16.00	2-5V	179	1.15	9.00	10.30	2-5V	178	1.73	7.50	13.00	3-C	173	1.18	11.00	13.00	3-C				
178	1.73	7.50	13.00	3-C	179	1.14	10.50	12.00	2-C	184	1.68	7.50	12.50	4-5V	179	1.15	9.00	10.30	3-5V				
184	1.68	7.50	12.50	2-5V	189	1.08	10.90	11.80	2-5V	184	1.68	7.40	12.40	6-B	179	1.14	7.00	8.00	5-C				
184	1.68	7.40	12.40	4-B	189	1.08	12.00	13.00	2-C	190	1.63	9.25	15.00	3-5V	184	1.11	9.25	10.30	4-5V				
190	1.63	9.25	15.00	2-5V	194	1.06	9.75	10.30	2-5V	190	1.63	8.00	13.00	4-C	184	1.11	9.00	10.00	4-C				
190	1.63	8.00	13.00	2-C	195	1.05	10.00	10.50	2-C	197	1.57	8.00	12.50	3-5V	189	1.08	10.90	11.80	3-5V				
201	1.54	9.00	10.60	4-3V	205	1.00	10.60	10.60	3-3V	197	1.57	7.00	11.00	5-C	189	1.08	12.50	13.00	3-C				
201	1.54	13.00	20.00	2-C	205	1.00	11.00	11.00	3-B	203	1.52	9.25	14.00	3-5V	194	1.06	12.50	13.20	2-5V				
210	1.47	9.00	13.20	2-5V	214	0.95	11.00	10.50	2-C	203	1.52	10.50	16.00	3-C	194	1.06	9.00	9.50	4-C				
210	1.47	6.40	9.40	4-B	216	0.95	13.20	12.50	2-5V	210	1.47	10.90	16.00	2-5V	205	1.00	10.60	10.60	5-3V				
216	1.43	9.25	13.20	2-5V	222	0.92	11.80	10.90	2-5V	210	1.47	9.50	14.00	3-C	205	1.00	12.40	12.40	4-B				
216	1.43	7.00	10.00	3-C	222	0.92	13.00	12.00	2-C	216	1.43	9.25	13.20	3-5V	216	0.95	13.20	12.50	2-5V				
226	1.37	8.00	10.90	2-5V	230	0.89	18.00	16.00	2-C	216	1.43	7.00	10.00	5-C	216	0.95	9.50	9.00	4-C				
226	1.37	9.50	13.00	2-C	231	0.89	12.40	11.00	3-B	226	1.37	8.00	10.90	3-5V	222	0.92	11.80	10.90	3-5V				
234	1.32	10.60	14.00	3-3V	235	0.87	11.80	10.30	2-5V	226	1.37	9.50	13.00	3-C	222	0.92	13.00	12.00	3-C				
234	1.32	9.40	12.40	4-B	239	0.86	14.00	12.00	2-C	234	1.32	10.60	14.00	4-3V	229	0.89	13.20	11.80	2-5V				
240	1.29	8.50	10.90	2-5V	246	0.83	15.00	15.00	2-5V	234	1.32	9.40	12.40	4-B	229	0.89	9.50	8.50	4-C				
240	1.29	7.00	9.00	5-A	246	0.83	18.00	15.00	3-A	240	1.28	10.30	13.20	2-5V	242	0.85	10.90	9.25	3-5V				
250	1.24	7.50	9.25	2-5V	253	0.81	13.00	10.50	2-C	240	1.29	7.00	9.00	5-C	242	0.85	13.00	11.00	3-C				
250	1.24	8.50	10.50	2-C	254	0.81	15.40	12.40	2-B	250	1.24	7.50	9.25	4-5V	253	0.81	9.25	7.50	4-C				
262	1.18	9.25	10.90	2-5V	261	0.79	15.00	11.80	2-5V	250	1.24	8.50	10.50	4-C	253	0.81	9.25	7.50	4-C				
262	1.18	9.00	10.60	5-A	261	0.79	14.00	11.00	2-C	260	1.19	11.80	14.00	2-5V	269	0.76	11.80	9.00	3-5V				
270	1.14	14.00	16.00	2-5V	263	0.78	13.20	10.30	2-5V	260	1.19	8.00	9.50	4-C	269	0.76	10.50	8.00	4-C				
270	1.14	10.50	12.00	2-C	263	0.78	18.00	14.00	2-C	270	1.14	14.00	16.00	2-5V	280	0.73	13.00	9.00	3-5V				
277	1.11	9.25	10.00	3-5V	271	0.76	14.00	10.60	4-3V	270	1.14	7.00	8.00	5-C	280	0.73	13.00	9.00	3-C				
278	1.11	9.00	10.00	3-C	273	0.75	14.00	10.50	2-C	276	1.12	11.80	13.20	2-5V	295	0.69	14.00	9.75	3-5V				
285	1.08	9.00	9.75	2-5V	282	0.72	15.00	10.90	2-5V	276	1.12	8.50	9.50	4-C	295	0.69	12.40	8.60	6-B				
285	1.08	12.00	13.00	2-C	283	0.72	18.00	13.00	2-C	285	1.08	10.90	11.80	2-5V	302	0.68	12.50	8.50	4-5V				
293	1.05	9.25	9.75	2-5V	298	0.69	16.00	11.00	2-C	285	1.08	12.50	13.20	3-3V	302	0.68	14.00	9.50	4-C				
293	1.06	9.00	9.50	2-5V	299	0.68	21.20	14.00	2-5V	292	1.06	8.50	9.00	4-C	315	0.65	10.60	6.90	8-3V				
309	1.00	10.60	10.60	3-3V	318	0.66	21.20	14.00	2-5V	292	1.06	10.80	11.80	2-5V	315	0.65	20.00	13.00	3-C				
309	1.00	11.00	11.00	2-3V	312	0.66	16.00	10.50	2-C	309	1.00	11.00	11.00	4-B	330	0.62	21.20	13.20	2-5V				
335	0.92	9.75	9.00	2-5V	315	0.65	20.00	13.00	2-C	309	1.00	11.00	11.00	4-B	330	0.62	21.20	13.20	2-5V				
335	0.92	13.00	12.00	2-C	319	0.64	16.00	10.30	2-5V	326	0.95	13.20	12.50	2-5V	337	0.61	16.00	9.75	3-5V				
341	0.90	9.50	9.50	3-C	330	0.62	21.20	13.20	2-5V	326	0.95	9.50	9.00	4-C	337	0.61	14.00	8.50	4-C				
343	0.87	10.30	9.25	2-5V	330	0.62	20.00	12.40	3-B	335	0.92	9.75	9.00	3-5V	343	0.60	12.50	7.50	4-5V				
343	0.87	12.00	11.00	2-C	341	0.60	18.40	11.00	2-C	335	0.92	13.00	12.00	3-C	343	0.60	12.40	7.40	6-B				
354	0.88	10.30	9.00	2-5V	348	0.59	21.20	15.00	2-5V	348	0.89	9.00	8.00	4-5V	355	0.58	13.00	7.50	5-C				
365	0.85	10.90	9.25	2-5V	348	0.59	18.00	10.60	2-A	348	0.89	12.40	11.00	4-B	356	0.58	16.00	9.25	3-5V				
365	0.85	13.00	11.00	2-C	348	0.59	18.00	10.60	2-A	358	0.86	6.90	6.90	4-C	358	0.56	19.00	10.60	4-3V				
375	0.82	10.90	9.00	2-5V	351	0.58	18.00	10.50	2-C	358	0.86	11.00	9.50	4-C	358	0.56	14.00	8.50	4-C				
382	0.81	13.00	10.50	2-C	368	0.56	1																



# V-belt Drives for TXT705, SCXT705 and TXT805 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

TXT705 and SCXT705 Reducers												TXT805 Reducers											
Driven by 1750 RPM Motor						Driven by 1160 RPM Motor						Driven by 1750 RPM Motor						Driven by 1160 RPM Motor					
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size				
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven					
100	3.27	11.00	36.00	3-C	102	2.13	13.20	28.00	2-5V	100	3.17	10.60	33.50	6-3V	102	2.07	10.30	21.20	4-5V				
103	3.17	10.60	33.50	4-3V	102	2.12	8.50	18.00	4-C	100	3.19	9.40	30.00	8-B	102	2.07	18.40	38.00	5-B				
103	3.16	9.50	30.00	3-V	108	2.01	14.00	28.00	2-5V	104	3.05	9.25	28.00	4-5V	108	1.95	10.90	21.20	4-5V				
115	2.85	7.50	21.20	3-5V	108	2.00	9.00	18.00	4-C	104	3.06	12.40	38.00	5-B	108	1.95	10.50	30.00	5-B				
116	2.82	8.50	24.00	4-C	114	1.89	8.50	16.00	4-5V	111	2.85	13.20	37.50	3-5V	117	1.80	15.60	19.00	3-C				
122	2.67	8.00	21.20	4-5V	114	1.90	10.50	20.00	3-C	111	2.86	10.50	30.00	4-C	117	1.80	20.00	36.00	3-C				
123	2.66	9.40	25.00	5-B	121	1.80	10.60	19.00	5-3V	116	2.74	10.30	28.00	5-5V	124	1.70	12.50	21.50	4-5V				
130	2.51	8.50	21.20	3-5V	121	1.79	8.60	15.40	6-B	117	2.73	11.00	30.00	6-B	126	1.67	11.00	18.40	8-B				
131	2.50	12.00	30.00	3-C	129	1.67	11.00	18.40	4-5V	123	2.58	10.90	28.00	3-5V	131	1.61	13.20	21.20	3-5V				
142	2.31	9.25	21.20	3-5V	129	1.67	11.00	18.40	6-B	124	2.57	14.00	36.00	3-C	131	1.61	12.40	20.00	6-B				
142	2.31	13.00	30.00	3-C	134	1.61	13.20	21.20	3-5V	133	2.38	11.80	28.00	3-5V	141	1.50	12.00	18.00	5-C				
145	2.25	12.50	28.00	2-5V	134	1.61	12.40	20.00	5-B	133	2.40	10.00	24.00	4-C	142	1.48	12.40	18.40	8-C				
145	2.25	8.00	18.00	5-C	146	1.48	8.00	11.80	5-5V	138	2.31	9.25	21.20	5-5V	148	1.43	14.00	20.00	5-C				
153	2.13	13.20	28.00	2-5V	146	1.48	12.40	18.40	5-B	138	2.31	13.00	30.00	4-C	149	1.42	15.00	21.20	4-5V				
153	2.14	8.60	18.40	6-B	155	1.39	9.00	12.50	4-5V	141	2.25	12.50	28.00	3-5V	155	1.36	11.80	16.00	5-5V				
162	2.01	7.50	15.00	4-5V	155	1.40	11.00	15.00	5-B	141	2.25	12.00	27.00	4-D	155	1.36	14.80	25.00	6-B				
162	2.02	12.40	25.00	4-B	164	1.32	10.60	14.00	6-3V	148	2.14	14.00	30.00	4-C	164	1.28	12.50	16.00	4-5V				
174	1.88	7.50	14.00	4-5V	164	1.32	9.40	12.40	6-B	149	2.13	13.20	28.00	3-5V	164	1.29	14.00	18.00	4-C				
174	1.88	8.50	16.00	4-C	170	1.27	11.80	15.00	3-5V	159	2.01	14.00	28.00	3-5V	170	1.24	12.40	15.40	8-B				
181	1.80	11.80	21.20	2-5V	170	1.27	10.00	14.00	4-C	167	1.90	10.50	20.00	5-C	171	1.23	13.00	16.00	5-C				
181	1.80	10.00	18.00	3-C	180	1.20	12.50	15.00	3-5V	167	1.90	10.50	20.00	5-C	176	1.20	12.50	15.00	4-5V				
195	1.67	9.00	15.00	4-5V	180	1.20	10.00	12.00	4-C	172	1.85	13.00	24.00	4-C	176	1.20	20.00	24.00	3-C				
195	1.67	11.00	18.40	5-B	189	1.15	10.30	11.80	4-5V	177	1.80	10.60	19.00	8-3V	185	1.14	13.20	15.00	4-5V				
203	1.61	13.20	21.20	3-5V	189	1.14	10.50	12.00	5-C	178	1.79	9.00	16.00	5-5V	185	1.14	14.00	16.00	5-C				
203	1.61	12.40	20.00	5-B	200	1.08	10.90	11.80	4-5V	183	1.74	9.25	16.00	5-5V	195	1.08	10.90	11.80	5-5V				
212	1.54	9.75	15.00	4-5V	200	1.08	12.00	13.00	4-C	186	1.71	10.50	18.00	5-C	195	1.08	12.00	13.00	5-C				
212	1.54	13.00	20.00	3-C	217	1.00	14.00	14.00	6-3V	190	1.67	9.00	15.00	5-5V	198	1.07	15.00	16.00	4-5V				
222	1.47	10.90	16.00	3-5V	217	1.00	18.40	18.40	4-B	190	1.67	11.00	18.40	8-B	198	1.07	14.00	16.00	4-5V				
222	1.47	9.50	14.00	4-C	228	0.95	10.00	9.50	5-C	197	1.61	12.40	20.00	8-B	203	1.04	15.00	14.00	4-D				
234	1.39	9.00	12.50	4-5V	229	0.95	13.20	12.50	3-5V	198	1.61	13.20	21.20	4-5V	204	1.04	14.00	14.50	4-D				
236	1.38	13.00	18.00	3-C	235	0.92	10.90	10.90	4-5V	207	1.54	13.00	20.00	5-C	211	1.00	12.50	12.50	5-5V				
248	1.31	9.00	11.80	4-5V	235	0.92	20.00	18.40	4-B	210	1.52	14.00	21.20	4-5V	211	1.00	16.00	16.00	5-C				
248	1.32	9.40	12.40	6-B	241	0.90	10.30	9.25	5-5V	214	1.48	12.40	18.40	8-B	225	0.94	16.00	15.00	4-5V				
257	1.27	11.80	15.00	3-5V	241	0.90	10.00	9.00	6-C	216	1.47	10.90	16.00	5-5V	225	0.94	15.50	14.50	4-D				
257	1.27	11.00	14.00	4-C	248	0.87	11.80	10.30	4-5V	230	1.38	13.00	18.00	5-C	235	0.90	14.50	13.00	4-D				
263	1.24	12.40	15.00	5-B	249	0.87	12.50	10.90	4-5V	231	1.38	10.90	15.00	5-5V	236	0.89	13.20	11.80	5-5V				
264	1.24	10.50	13.00	4-C	256	0.85	10.90	9.25	5-5V	234	1.36	11.80	16.00	4-5V	241	0.87	16.00	14.00	4-5V				
272	1.20	12.50	15.00	3-5V	256	0.85	13.00	11.00	4-C	239	1.33	12.00	16.00	5-C	241	0.88	16.00	14.00	5-C				
272	1.20	10.00	12.00	4-C	263	0.82	11.00	9.75	4-5V	247	1.29	10.90	14.00	5-5V	251	0.84	15.00	11.80	5-C				
286	1.14	14.00	16.00	2-5V	265	0.82	11.00	9.00	5-C	247	1.29	14.00	18.00	5-C	251	0.84	15.00	13.00	4-D				
286	1.14	10.50	12.00	4-C	276	0.79	15.00	11.80	3-5V	256	1.24	12.40	15.00	8-B	260	0.81	16.00	13.00	5-C				
293	1.11	9.25	10.30	4-5V	276	0.79	12.50	10.30	4-5V	259	1.23	13.00	16.00	5-C	261	0.81	13.00	10.50	8-C				
296	1.11	9.50	10.50	4-C	286	0.76	14.00	10.60	6-3V	263	1.21	12.00	14.50	5-D	271	0.78	14.00	10.90	5-5V				
302	1.08	10.90	11.80	3-5V	286	0.76	12.40	9.40	8-B	265	1.20	12.50	15.00	4-5V	271	0.78	18.00	14.00	5-C				
302	1.08	12.00	13.00	4-C	296	0.73	13.00	9.00	5-5V	268	1.19	11.80	14.00	4-5V	280	0.75	21.20	16.00	3-5V				
310	1.05	9.25	9.75	4-5V	296	0.73	13.00	9.50	5-C	268	1.19	13.50	16.00	4-D	281	0.75	14.00	10.50	6-C				
310	1.05	9.50	10.00	5-C	312	0.69	14.00	9.75	4-5V	277	1.15	10.90	12.50	5-5V	291	0.72	15.00	10.90	5-5V				
327	1.00	10.30	10.30	3-5V	312	0.69	12.40	8.60	8-B	277	1.15	13.50	15.50	4-D	292	0.72	18.00	13.00	4-5V				
327	1.00	11.00	11.00	5-B	319	0.68	16.00	10.90	3-5V	283	1.13	12.00	13.50	5-D	299	0.71	21.20	15.00	4-5V				
336	0.97	9.25	9.00	4-5V	319	0.68	14.00	9.50	4-C	284	1.12	11.00	13.20	5-D	302	0.70	20.00	14.00	5-C				
342	0.95	11.00	10.50	4-C	333	0.65	10.60	9.50	4-5V	284	1.12	10.90	13.20	5-D	311	0.68	16.00	10.90	5-5V				
345	0.95	9.75	9.25	5-C	333	0.65	20.00	13.60	3-5V	294	1.08	12.00	13.00	6-C	311	0.68	14.00	9.50	8-C				
354	0.92	11.80	10.90	3-5V	342	0.63	11.80	9.50	5-5V	297	1.07	14.00	15.00	4-5V	316	0.67	18.00	12.00	5-C				
354	0.92	13.00	12.00	3-C	346	0.63	16.00	10.00	4-C	297	1.07	14.00	15.00	4-C	320	0.66	14.00	9.25	6-B				
364	0.90	10.30	9.25	4-5V	354	0.61	10.60	11.00	4-C	306	1.04	13.00	13.50	5-D	328	0.64	14.00	9.00	8-C				
365	0.89	9.50	8.50	5-C	362	0.60	11.80	7.10	5-5V	318	1.00	12.50	12.50	4-5V	340	0.62	21.20	13.20	4-5V				
378	0.86	9.25	8.00	4-5V	362	0.60	18.40	11.00	5-B	318	1.00	13.00	13.00	5-C	343	0.61	15.00	9.25	8-5V				
378	0.86	11.00	9.50	4-5V	371	0.58	18.00	10.50	4-C	336	0.95	13.20	12.50	5-5V	353	0.60	13.20	8.00	8-5V				
386	0.85	10.90	9.25	4-5V	372	0.58	11.00	6.40	10-B	337	0.94	10.90	10.90	5-5V	363	0.60	16.00	10.00	8-5V				
386	0.85	13.00	11.00	4-C	384	0.56	16.00	9.00	4-C	356	0.89	10.90	9.75	6-5V	366	0.58	18.00	9.25	6-B				
392	0.83	12.00	10.00	4-C	385	0.56	16.00	9.00	4-C	357	0.89	14.00	12.50	5-5V	371	0.57	14.00	8.00	8-5V				
392	0.83	9.00	7.50	5-5V	390	0.56	18.00	10.00	4-C	376	0.85	10.90	9.25	8-5V	379	0.							



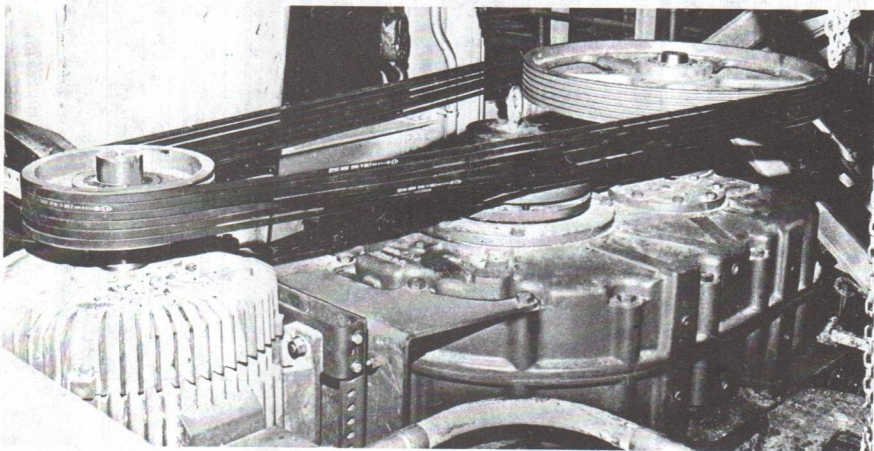
## V-belt Drives for TXT905 Reducers

These are typical drives for average service conditions. For other conditions, output speeds or motor speeds see reducer specification for minimum driven sheave diameter and use V-belt drive selection tables.

TXT905 Reducers																								
Driven by 1750 RPM Motor												Driven by 1160 RPM Motor												
Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size	Out-put RPM	V-belt Drive Ratio	Sheave Diameters ★		Qty. & Belt Size
		Driver	Driven				Driver	Driven				Driver	Driven				Driver	Driven						
102	3.20	11.80	37.50	4-5V	253	1.28	12.50	16.00	5-5V	101	2.13	13.20	28.00	4-5V	228	0.95	13.20	12.50	6-5V	102	3.20	11.80	37.50	4-5V
103	3.17	10.60	33.50	8-3V	255	1.27	11.80	15.00	5-5V	101	2.14	14.00	30.00	5-C	229	0.94	14.00	13.20	6-5V	103	3.14	14.00	44.00	4-C
104	3.13	14.00	44.00	4-C	268	1.21	10.90	13.20	6-5V	104	2.07	10.30	21.20	5-5V	241	0.89	13.20	11.80	6-5V	104	3.13	9.00	28.00	5-5V
108	3.02	12.50	37.50	4-5V	274	1.20	12.50	15.00	5-5V	104	2.07	18.40	38.00	6-B	242	0.89	14.00	12.50	4-8V	108	3.02	12.50	37.50	4-5V
108	3.00	12.00	36.00	6-C	284	1.14	13.00	16.00	5-5V	108	2.00	18.00	36.00	5-C	256	0.84	14.00	11.80	6-5V	108	3.00	12.00	36.00	6-C
114	2.85	13.20	37.50	4-5V	285	1.14	13.20	15.00	5-5V	111	1.95	15.40	30.00	8-B	259	0.83	15.00	12.50	6-5V	114	2.85	13.20	37.50	4-5V
117	2.77	13.00	36.00	5-C	286	1.14	13.20	15.00	6-5V	115	1.87	16.00	30.00	4-5V	261	0.82	16.00	13.20	5-5V	117	2.77	13.00	36.00	5-C
121	2.69	14.00	37.50	4-5V	303	1.07	14.00	15.00	6-5V	120	1.79	14.00	25.00	10-3V	274	0.79	15.00	11.80	4-8V	121	2.69	14.00	37.50	4-5V
126	2.58	10.90	28.00	5-5V	306	1.06	13.20	14.00	6-5V	120	1.80	20.00	36.00	4-C	276	0.78	16.00	12.50	5-5V	126	2.58	10.90	28.00	5-5V
126	2.57	14.00	36.00	5-C	325	1.00	13.20	13.20	6-5V	123	1.75	16.00	28.00	4-5V	286	0.75	21.20	16.00	5-5V	126	2.57	14.00	36.00	5-C
130	2.50	12.00	30.00	6-C	343	0.95	13.20	12.50	6-5V	126	1.71	12.50	21.20	4-8V	288	0.75	20.00	15.00	4-8V	130	2.50	12.00	30.00	6-C
134	2.42	12.40	30.00	8-B	345	0.94	14.00	13.20	6-5V	127	1.70	12.50	21.20	5-5V	294	0.73	14.00	10.30	10-5V	134	2.42	12.40	30.00	8-B
137	2.38	11.80	28.00	4-5V	364	0.89	14.00	12.50	6-5V	127	1.69	13.00	22.00	4-D	295	0.73	18.00	13.20	4-8V	137	2.38	11.80	28.00	4-5V
141	2.31	13.00	30.00	5-C	386	0.84	14.00	12.50	5-8V	132	1.63	18.40	30.00	8-B	306	0.70	21.20	15.00	4-8V	141	2.31	13.00	30.00	5-C
144	2.25	12.50	28.00	4-5V	394	0.82	13.20	10.90	8-5V	133	1.62	15.40	25.00	8-B	308	0.70	13.20	9.25	10-5V	144	2.25	12.50	28.00	4-5V
144	2.25	12.00	27.00	5-D	...	...	...	...	...	137	1.61	13.20	22.00	5-5V	312	0.69	19.00	13.20	4-8V	144	2.25	12.00	27.00	5-D
153	2.13	13.20	28.00	5-5V	...	...	...	...	...	142	1.52	14.00	21.20	5-5V	328	0.66	20.00	13.20	4-8V	153	2.13	13.20	28.00	5-5V
162	2.01	14.00	28.00	4-5V	...	...	...	...	...	142	1.52	14.50	22.00	4-D	329	0.65	19.00	12.50	5-8V	162	2.01	14.00	28.00	4-5V
166	1.95	10.90	21.20	6-5V	...	...	...	...	...	144	1.50	16.00	24.00	5-C	333	0.65	15.00	9.75	8-5V	166	1.95	10.90	21.20	6-5V
180	1.80	11.80	21.20	5-5V	...	...	...	...	...	147	1.47	15.00	22.00	4-D	336	0.64	16.00	10.30	8-5V	180	1.80	11.80	21.20	5-5V
182	1.79	14.00	25.00	8-3V	...	...	...	...	...	150	1.43	14.00	20.00	4-8V	347	0.62	21.20	13.20	6-5V	182	1.79	14.00	25.00	8-3V
191	1.70	12.50	21.20	5-5V	...	...	...	...	...	152	1.42	15.00	21.20	5-5V	348	0.62	21.20	13.20	4-8V	191	1.70	12.50	21.20	5-5V
202	1.61	13.20	21.20	5-5V	...	...	...	...	...	158	1.36	14.00	19.00	4-8V	355	0.61	16.00	9.75	8-5V	202	1.61	13.20	21.20	5-5V
213	1.53	12.50	19.00	4-8V	...	...	...	...	...	162	1.33	16.00	21.20	5-5V	361	0.60	14.00	8.50	10-5V	213	1.53	12.50	19.00	4-8V
214	1.52	14.00	21.20	4-5V	...	...	...	...	...	167	1.29	13.20	17.00	4-8V	366	0.60	15.00	9.00	10-5V	214	1.52	14.00	21.20	4-5V
221	1.47	10.90	16.00	6-5V	...	...	...	...	...	177	1.21	13.20	16.00	6-5V	379	0.57	14.00	8.00	10-5V	221	1.47	10.90	16.00	6-5V
225	1.45	12.50	18.00	4-8V	...	...	...	...	...	188	1.14	14.00	16.00	6-5V	374	0.58	16.00	9.25	8-5V	225	1.45	12.50	18.00	4-8V
236	1.38	10.90	15.00	6-5V	...	...	...	...	...	189	1.14	13.20	15.00	6-5V	379	0.57	14.00	8.00	10-5V	236	1.38	10.90	15.00	6-5V
238	1.37	12.50	17.00	4-8V	...	...	...	...	...	201	1.07	14.00	15.00	6-5V	385	0.56	16.00	9.00	10-5V	238	1.37	12.50	17.00	4-8V
239	1.36	11.80	16.00	5-5V	...	...	...	...	...	202	1.07	15.00	16.00	5-5V	389	0.55	21.20	11.80	6-5V	239	1.36	11.80	16.00	5-5V

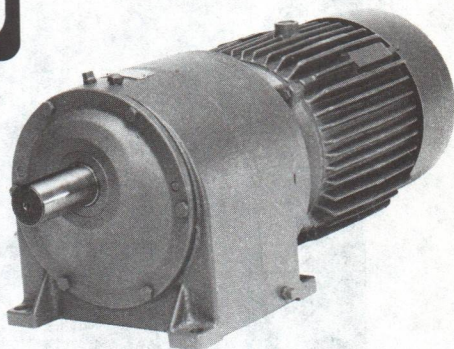
Note: These V-belt drives are designed for normal service and are based on reducer ratings. Where fire hazards are prevalent and fire prevention laws apply, it is recommended that drives be redesigned using a service factor of 2.0 on the hp rating of the motor — refer to V-belt drive tables or consult factory.

★ Dodge stock sheaves. Outside diameters shown for DYN-A-V (3V & 5V); pitch diameters for B & C sheaves. All ratios based on P.D. Sheaves in shaded area represent speed up drives.



Note: Guards have been removed for photographic purposes.

AMERICAN PARALLEL GEARING

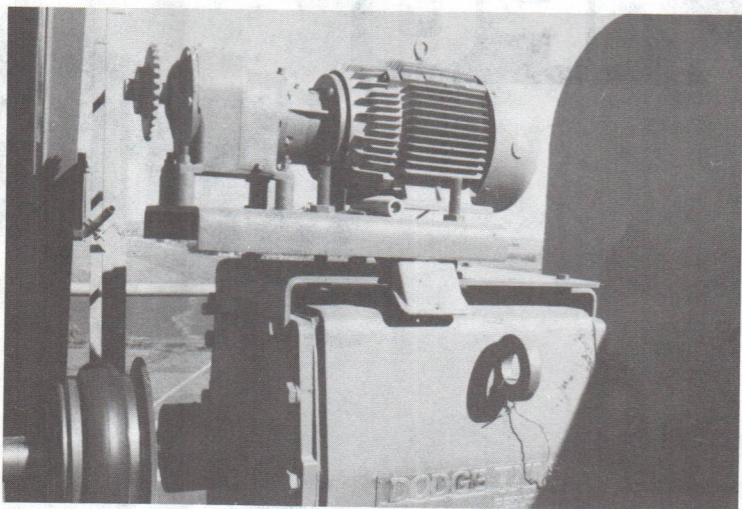


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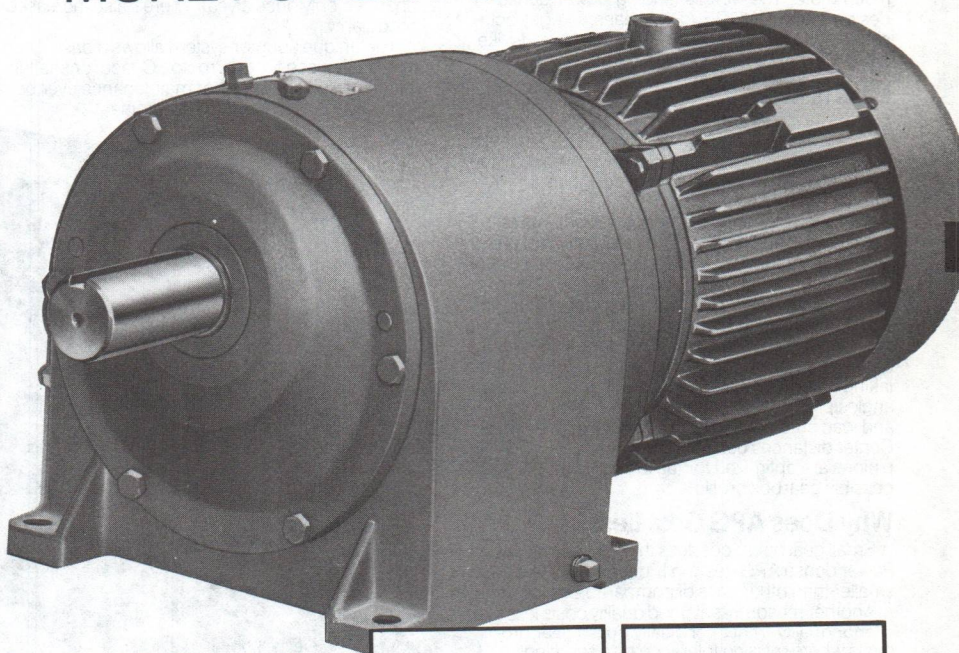
DODGE APG Gearmotor, DODGE TXT Reducer and DODGE PARA-FLEX Coupling used in a grain storage application.

**Note:** Guards have been removed for photographic purposes.

AMERICAN PARALLEL GEARING

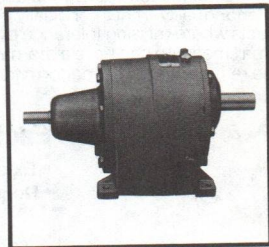
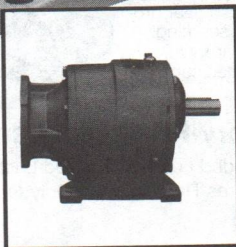
**DODGE**  
**APG**

**MORE POWER FOR LESS COST**



**The World's Greatest  
Power Density**

- Gearmotors
- C-Face Reducers
- Shaft-in Reducers



**G9-3**



# POWER DENSITY

## Dodge® APG is packed with more power f

The new DODGE APG (American Parallel Gearing) is a complete line of parallel helical gearmotors, C-face reducers, and shaft-in reducers. Made in America.

Technically, the term power density is used to describe the relationship between gearbox capability and size. It is expressed in HP per cubic inch. In practice, power density means much more. The world's leading power dense design of the DODGE APG means you get both superior quality and lower cost. That sounds like a big claim, but here's why it's true.

### Less is More

A power dense design delivers greater torque from a smaller package. This can only be achieved by striking the perfect balance between each of the many design variables. Think of design as a symphony.

Each component must perform exactly as required; no more, no less. The initial standard is set with quality gearing. All APG gears are Class 9 (with the exception of fine pitch input pinions in the smallest case sizes), the ideal rating for both strength and manufacturability. Bearing spans are minimized to reduce shaft deflection. Finite Element Modeling creates a housing that is stronger, yet lighter. Pains-taking analysis of gear and pinion helix angles provides optimum bearing sizing and load sharing, and quieter operation. Center distances between gears and pinions are optimized for the lowest possible gearbox profile.

### Why Does APG Cost Less?

Small gearboxes cost less than big gearboxes. Power dense APG gearing is often as much as 40% smaller than other units of comparable ratings.

Another reason is that good quality costs less than inferior quality. That's especially true in gear products where missing tolerance by a seemingly small measure can have a dramatic impact on the reducer's ability to perform to rated capacity.

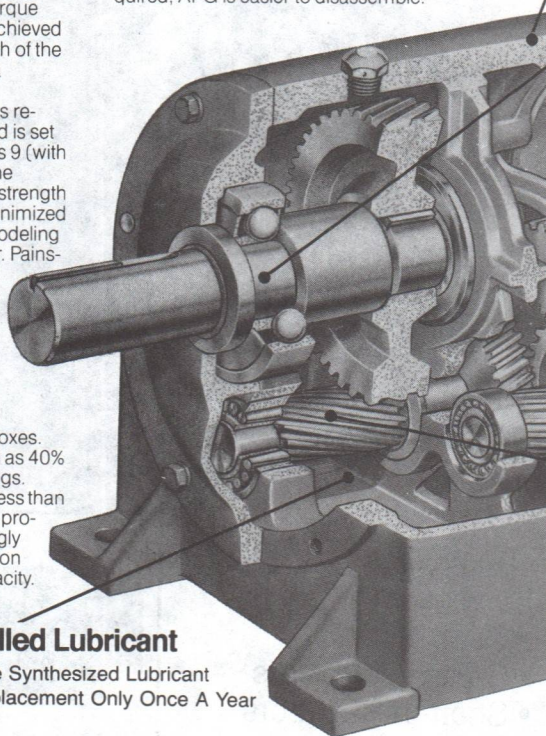
### Applications and Configurations

APG gearing can be used in applications ranging from fractional HP through 75 HP inputs. Available ratios range from 1.2 to 129.7:1 in both foot and flange mountings.

### Less Maintenance, Easier Service

APG offers reduced maintenance. Oil needs to be changed only once a year. There's also increased modularity.

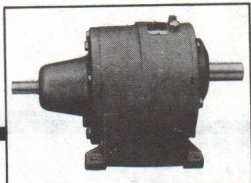
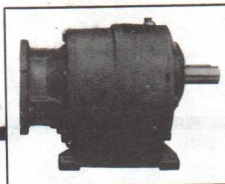
The unique adaptor system allows a basic gear-case to be used for gearmotor, C-face, or shaft-in reducer. And should other maintenance ever be required, APG is easier to disassemble.



### Factory-Filled Lubricant

- Extended Life Synthesized Lubricant
- Requires Replacement Only Once A Year

lower costs.

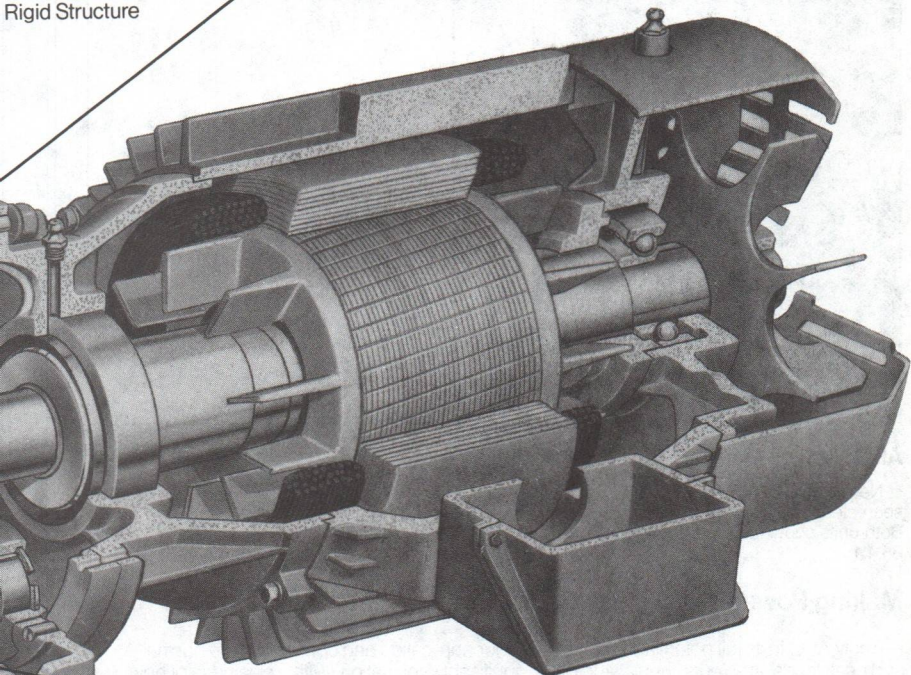


### Cast Iron Housing

Minimized Weight  
Rigid Structure

### Minimum Bearing Spans

- Less Shaft Deflection
- 5000 Hours  $B_{10}$ -Life at Full Rated Load



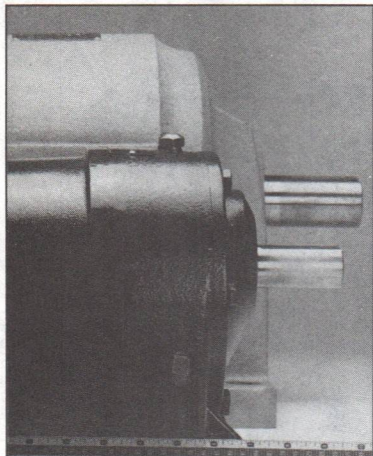
### Optimized Gear Geometry

- Greater Load Sharing
- Quieter Operation
- Case Carburized for Maximum Strength and Durability
- 98% Efficient Per Stage

**Dodge® APG American Parallel Gearing**

**G9-5**





- 1/3 thru 75 HP
- 1.2 thru 129.7:1 Reduction
- Integral Gearmotors
- C-Face or Separate Shaft Inputs
- Base or Flange Mountings

### APG Vs. Non-Power Dense Design

New DODGE APG Power Density is seen clearly in this gearhead comparison. Both units shown are rated at two HP at 38.4:1.

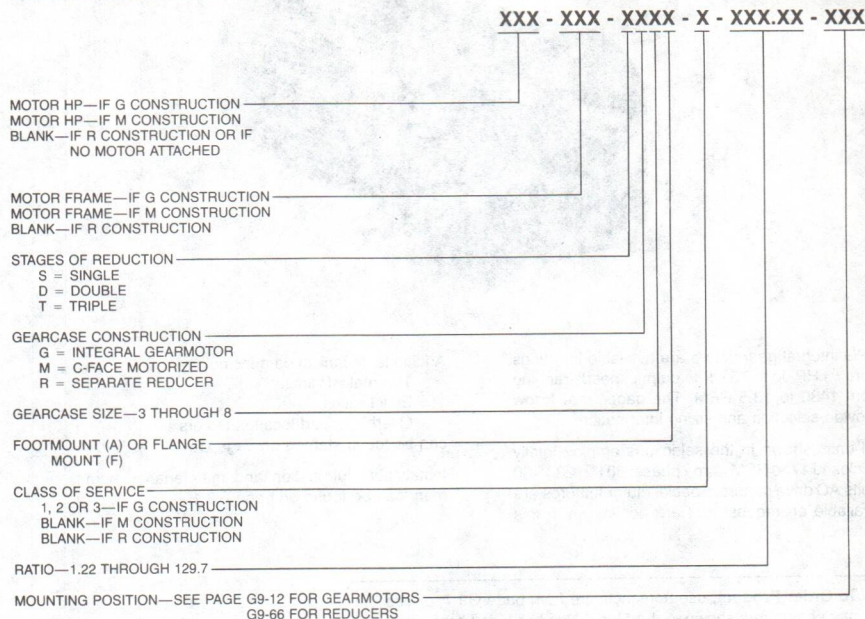
### Making Power Density Pay Off

Apply APG to its full potential. Take stock of your application and consider all the normal and peak loads, ambients, inertia, and other significant information. With a clear idea of how much rating you really need, you can apply the right size APG gearmotor or reducer. Then when you look at how much money you paid, you will see the real benefit of power density.

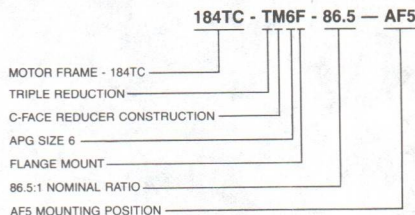
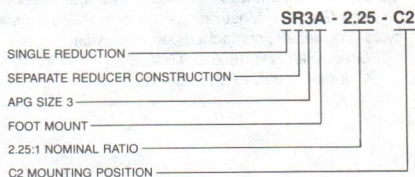
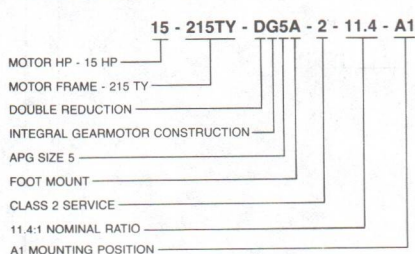
*Move with the leader.™  
Specify DODGE APG.*

# DODGE APG Nomenclature

When the correct APG unit has been selected, a part number can be compiled by using the following Part Number System. To make the processing of your order as efficient as possible, please specify integral gearmotors, C-face reducers, or separate reducers using nomenclature provided.



## Nomenclature Examples

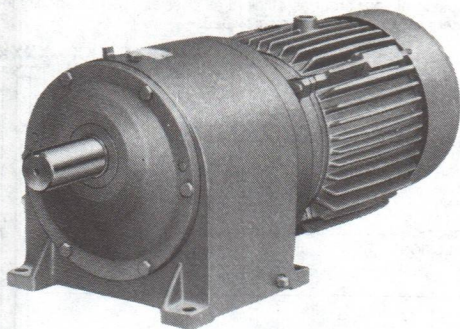


REFERENCES			
GEARMOTOR SELECTION G9-9		REDUCER SELECTION G9-61	
GEARMOTOR MOUNTING POSITIONS G9-12		REDUCER MOUNTING POSITIONS G9-66	
PRICING G9-112		MODEL NUMBER INDEX G9-113	



## DODGE APG Integral Gearmotors

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APG integral gearmotors are available in ratings from  $\frac{1}{3}$  HP up to 75 HP in output speeds ranging from 1430 to 13.5 RPM. The pages that follow provide selection and sizing information.

All units shown in the selections employ totally enclosed 1750 RPM, three phase, 60 Hz, 230/460 Volts AC drive motors. Special motor features are available on request and are not shown in this catalog.

Additional technical data including:

Thermal HP limits

Exact ratios

Overhung load location factors

can be found starting on page G9-104.

Installation, lubrication and maintenance summary can be found on page G9-108.

**To Order Product**, use nomenclature from page G9-7, or use model numbers shown in the Model Number Index beginning on page G9-117. Most ratings are available on a short delivery cycle. For details, contact customer service.

Greenville, S.C. (803) 297-4800

Columbus, Ind. (812) 376-1421

# DODGE APG Gearmotor Selection Procedure

**Step 1:** For applications with one start/hr. or less and non-pulsating load (starting factor = 1.0) skip Steps 2 and 3 and proceed to Step 4. For applications with more than one start/hr. proceed to Step 2. For pulsating loads contact Application Engineering at 812-376-1100.

**Step 2:** Determine inertia ratio (application assistance available at 812-376-1100).

$$\text{Inertia Ratio} = \frac{\text{Driven Inertia}}{\text{Driving Inertia}}$$

Where: **Driving Inertia** is defined as the motor inertia. This value must be provided by the motor manufacturer. On APG Gearmotors, driving inertia data is available from your DODGE Sales Engineer or Application Engineering.

**Driven Inertia** is defined as the "load inertia" referred to the motor speed. The "load inertia" must be provided by the driven machine manufacturer. For assistance contact application engineering or see formulas below.

$$\text{Rotating Driven Inertia} = \text{Load Inertia} \times \left( \frac{\text{Load RPM}}{\text{Motor RPM}} \right)^2$$

$$\text{Linear Driven Inertia} = W \times \left( \frac{V}{6.28 N} \right)^2$$

Where: W = Weight (Lbs.)  
V = Linear Velocity (Ft/Min.)  
N = Motor RPM

If these values are unobtainable proceed to Step 3. If application assistance is required contact Application Engineering at 812-376-1100.

**Note: Gearbox Inertias**, not addressed above, are typically negligible. If required, inertia values for the APG unit may be obtained from your DODGE Sales Engineer or Application Engineering.

**Step 3:** With inertia ratio determined, use Chart 1 to select starting factor.

**Chart 1: Starting Factors**

Starts HR	Inertia Ratios				Unknown Inertia Ratio
	0.0-0.5	>0.5-1.0	>1.0-2.0	>2.0-4.0	
1	1.00	1.00	1.00	1.00	1.00
2	1.00	1.00	1.00	1.15	1.15
5	1.00	1.00	1.13	1.33	1.33
10	1.00	1.01	1.21	1.45	1.45
15	1.00	1.03	1.26	1.51	1.51
20	1.00	1.05	1.29	1.56	1.56
25	1.00	1.05	1.31	1.59	1.59

If starting frequency is greater than 25 starts/hr., contact application engineering at 812-376-1100.

**Step 4:** Determine "Driven Machine Factor" from Chart 2 below.

**Chart 2: Driven Machine Factor**

Duration of Service Per Day	Driven Machine Load Classification		
	Uniform	Medium Shock	Heavy Shock
Intermittent 2 hrs.	0.90	1.00	1.50
Up to 10 hours	1.00	1.25	1.75
10-24 hours	1.25	1.50	2.00

**Step 5:** Determine service factor.

Service Factor = Starting Factor × Driven Machine Factor

**Step 6:** Determine class of service from Chart 3.

**Chart 3: Class of Service**

Service Factor	Class of Service
0.9-1.0	I
>1.0-1.4	II
>1.4-2.0	III

For service factors greater than 2.0, DODGE APG reducer selection procedure starting with Step 6 must be used. See Page G9-61.

REFERENCES			
FEATURES	G9-3	NOMENCLATURE	G9-7
DIMENSIONS	G9-9	INSTALLATION/MAINTENANCE	G9-108
MOUNTING POSITIONS	G9-12	WEIGHTS	G9-60



# DODGE APG Gearmotor Selection Procedure

**Step 7:** Go to the desired HP Gearmotor Selection Table for the appropriate class of service and output RPM (or reduction ratio). This will indicate gearcase size, motor frame size, output torque, and output OHL capacity.

**Step 8:** Check overhung loads by using the following formula:

$$\text{OHL} = \frac{126,000 \times \text{HP} \times \text{Fc} \times \text{Lf}}{\text{PD} \times \text{RPM}}$$

Where: OHL = Overhung Load (lbs.)

HP = Demand Horsepower

Fc = Load Connection Factor

Chain Drive: Fc = 1.00

Synchronous Belt Drive Fc = 1.10

Spur or Helical Gear Fc = 1.25

V-Belt Drive Fc = 1.50

Flat Belt Drive Fc = 2.50

Lf = Load Location Factor. For Lf of low speed shaft see page G9-106

PD = Pitch Diameter (inches)

RPM = Revolutions per Minute (output)

To minimize overhung load and increase bearing life, load centerline should be located as close to the shaft shoulder as possible. For applications where OHL exceeds cataloged values contact Application Engineering at 812-376-1100 or use the reducer selection tables to select the next largest size gearcase.

## Gearmotor Selection Example:

The customer is designing a new automatic storage and retrieval system on which they propose to use a parallel gearmotor to drive the elevate function.

Application information provided is:

Customer Requested 10 HP at 37 RPM Output

Output HP Required = 8.4 HP

Carriage Weight (Dead Load) = 1000 lbs.

Maximum Material Weight = 1400 lbs.

Travel Velocity = 2 ft/sec

Drum Diameter = 12 inches

## Duty Cycle:

Start, raise carriage 10 ft. in 5 seconds, brake stop, rest 10 seconds, start, lower carriage 10 ft. in 5 seconds, brake stop, rest 5 minutes — repeat cycle for 16 hours per day.

Select and recommend a DODGE APG Gearmotor for this application.

1. Determine number of starts/hour:

$$\text{Starts/hr.} = \frac{2 \text{ Starts}}{(5 + 10 + 5 + 300) \text{ sec.}} \times \frac{3600 \text{ sec.}}{\text{hr.}} \\ = 22.5 \text{ Starts/hr.}$$

2. Determine inertia ratio =  $\frac{\text{Driven Inertia}}{\text{Driving Inertia}}$

A. Driving inertia is motor rotor inertia

10 HP 1750 RPM motor inertia = 0.77 lb. ft<sup>2</sup>

(Provided by motor manufacturer.)

B. Driven inertia is load inertia referred to the motor shaft, which in this case is linear inertia.

$$\text{Linear driven inertia} = W \left( \frac{V}{6.28 N} \right)^2 \\ = 2400 \left( \frac{2 \times 60}{6.28 \times 1750} \right)^2 \\ = 0.286 \text{ lb-ft.}^2$$

$$\text{C. Inertia ratio} = \frac{0.286}{0.77} = 0.37$$

3. Determine "starting factor" (Ref. Chart 1)

For 22.5 starts/hr. and 0.37 inertia ratio starting factor = 1.0

4. Determine "driven machine factor" (Ref. Chart 2)

Assume uniform load at 16 hrs./day driven machine factor = 1.25

5. Calculate service factor

$$\begin{aligned}\text{Service factor} &= \text{starting factor} \times \text{driven machine factor} \\ &= 1.0 \times 1.25 \\ &= 1.25\end{aligned}$$

6. Determine Class of Service (Ref. Chart 3)

$$\text{Class of Service} = \text{Class II}$$

7. From 10 HP Class II Gearmotor Selection Tables (pg. G9-33) at 37 RPM select

$$\begin{aligned}10 - 210 - \text{TG7A1} - 2 - 47.1 \\ \text{List price} = \$5624\end{aligned}$$

**Low Speed Shaft OHL Example**

The customer in the example above has determined the need for a chain drive at the reducer output. A 15-tooth single strand 160 chain sprocket with a 9.62" P.D. is mounted on the reducer low speed shaft with the load centered 1.5" from the shaft shoulder. Calculate using the OHL formula:

$$\text{OHL} = \frac{126,000 \times 8.4 \times 1.0 \times .644}{9.62 \times 37}$$

$$\text{OHL} = 1915 \text{ lbs.}$$

Referring back to the selection table (G9-33), note that the OHL capacity for a size 7 at 37 rpm is 7500 lbs. and is satisfactory for this selection.

**ALTERNATE SOLUTION** (to be used when actual output HP required is known)

For a possibly smaller unit, apply the service factor to the actual output HP and select gearcase size from the Reducer Ratings tables beginning on G9-69.

$$\begin{aligned}\text{HP output required} &= \text{HP actual} \times \text{SF} \\ &= 8.4 \times 1.25 \\ &= 10.5 \text{ HP out}\end{aligned}$$

From Reducer Ratings tables a size 6 gearcase may be used. Therefore, the unit would be

$$\begin{aligned}10 - 210 - \text{TG6A1} - 1 - 47.1 \\ \text{List price} = \$3918\end{aligned}$$

**Low Speed Shaft OHL Example**

Same as above except:

$$\text{OHL} = \frac{126,000 \times 8.4 \times 1.0 \times .733}{9.62 \times 37}$$

$$\text{OHL} = 2180 \text{ lbs.}$$

Referring back to the gearmotor selection table (G9-32), note that the OHL capacity for a size 6 at 37 rpm is 5150 lbs. and is satisfactory for this selection.

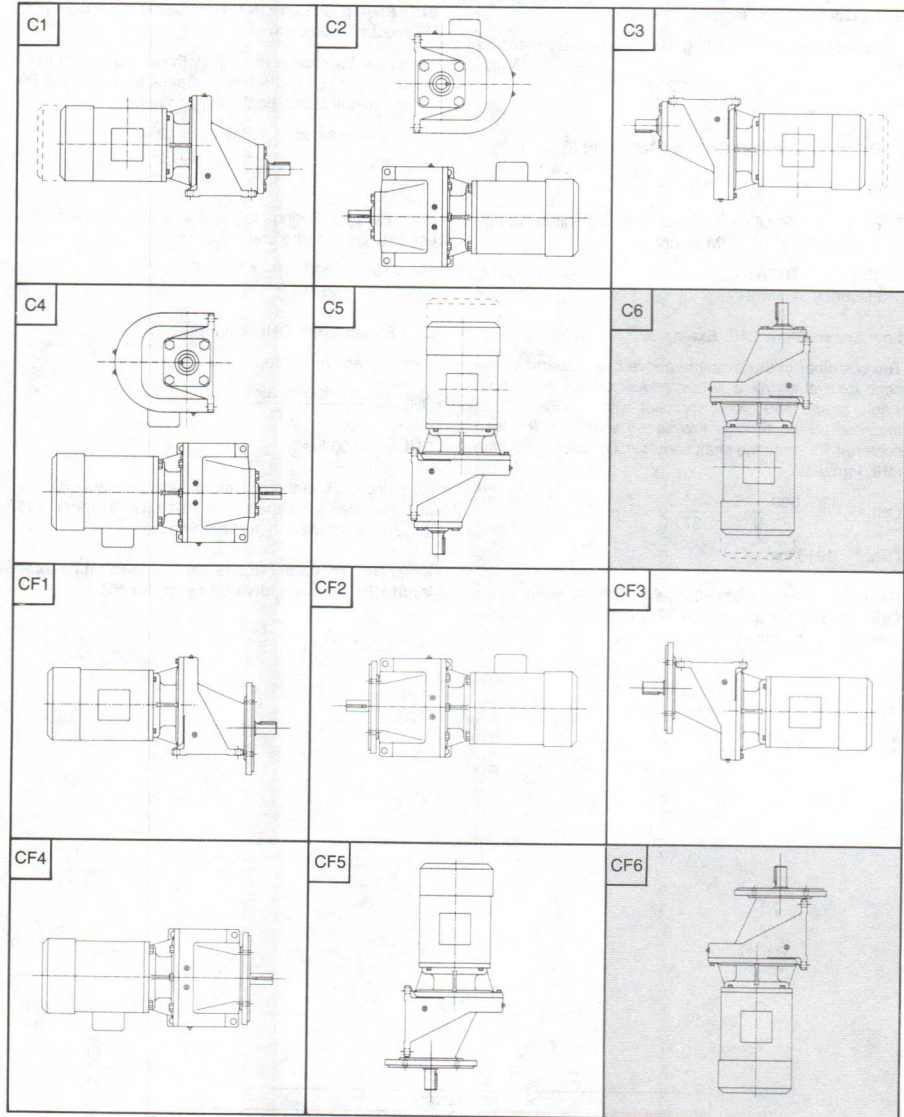
**Note:** Nameplate service factor is based on gearcase input HP capability, divided by motor HP.

REFERENCES			
FEATURES	G9-3	NOMENCLATURE	G9-7
DIMENSIONS	G9-59	MODEL NUMBER INDEX	G9-117
MOUNTING POSITIONS	G9-12	WEIGHTS	G9-60



# DODGE APG Mounting Positions

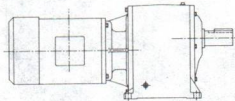
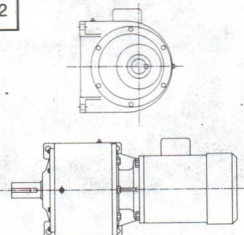
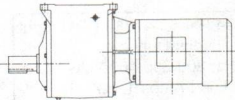
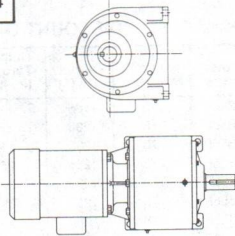
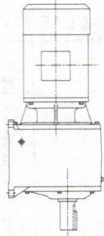
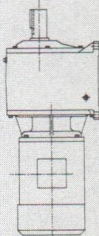
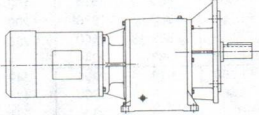
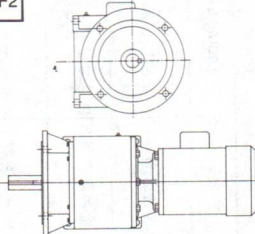
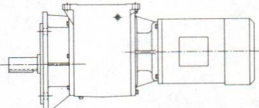
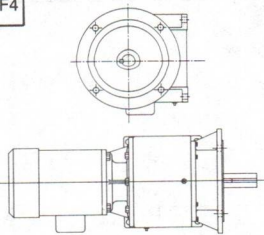
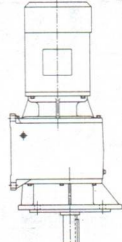
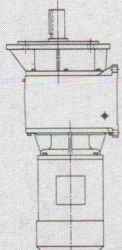
## Single Reduction Gearmotor—Foot Mounted & Flange Mount



**Note:** Shaded boxes indicate mounting *not* recommended. These should be avoided. Use of product in positions not recommended negates time-in-use warranty.

# DODGE APG Mounting Positions

## Double/Triple Reduction Gearmotors—Foot Mounted & Flange Mount

<b>A1</b> 	<b>A2</b> 	<b>A3</b> 
<b>A4</b> 	<b>A5</b> 	<b>A6</b> 
<b>AF1</b> 	<b>AF2</b> 	<b>AF3</b> 
<b>AF4</b> 	<b>AF5</b> 	<b>AF6</b> 

**Note:** Shaded boxes indicate mounting *not* recommended. These should be avoided. Use of product in positions not recommended negates time-in-use warranty.



# DODGE APG—1/3 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—  
60 Hz, 208-230/460 Volts AC  
Full Load Amps 1.4/.7  
Totally Enclosed Fan Cooled

3 ft. lb. Brake (2)  
Add \$354 to List Price



## 1/3 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$778	1185	14
	1170	1.50	3	FB56P	778	1205	17
	950	1.84	3	FB56P	778	1235	21
	780	2.25	3	FB56P	778	1255	26
	640	2.76	3	FB56P	778	1235	32
	520	3.38	3	FB56P	778	1255	39
	420	4.13	3	FB56P	778	1280	49
DOUBLE	350	5.06	3	FB56P	778	1310	58
	280	6.20	3	FB56P	883	1400	71
	230	7.59	3	FB56P	883	1500	87
	190	9.30	3	FB56P	883	1580	105
	155	11.4	3	FB56P	883	1700	129
	125	14.0	3	FB56P	883	1815	160
	100	17.1	3	FB56P	883	1970	200
TRIPLE	84	20.9	3	FB56P	883	2100	238
	68	25.6	3	FB56P	883	2240	294
	56	31.4	3	FB56P	919	2300	349
	45	38.4	3	FB56P	919	2300	434
	37	47.1	3	FB56P	919	2300	528
	30	57.7	3	FB56P	919	2300	651
	25	70.6	3	FB56P	919	2300	782
	20	86.5	3	FB56P	919	2300	977
	16.5	105.9	3	FB56P	919	2300	1184
	13.5	129.7	3	FB56P	919	2300	1448

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

# **1/3 HP—CLASS II**

## **DISCOUNT D-42a**

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$778	1180	14
	1170	1.50	3	FB56P	778	1205	17
	950	1.84	3	FB56P	778	1235	21
	780	2.25	3	FB56P	778	1250	26
	640	2.76	3	FB56P	778	1235	32
	520	3.38	3	FB56P	778	1255	39
	420	4.13	3	FB56P	778	1280	49
DOUBLE	350	5.06	3	FB56P	778	1295	58
	280	6.20	3	FB56P	883	1395	71
	230	7.59	3	FB56P	883	1495	87
	190	9.30	3	FB56P	883	1580	105
	155	11.4	3	FB56P	883	1700	129
	125	14.0	3	FB56P	883	1820	160
	100	17.1	3	FB56P	883	1960	200
TRIPLE	84	20.9	3	FB56P	883	2080	238
	68	25.6	3	FB56P	883	2230	294
	56	31.4	3	FB56P	919	2300	349
	45	38.4	3	FB56P	919	2300	434
	37	47.1	3	FB56P	919	2300	528
	30	57.7	3	FB56P	919	2300	651
	25	70.6	3	FB56P	919	2300	782
	20	86.5	3	FB56P	919	2300	977
	16.5	105.9	3	FB56P	919	2300	1184
	13.5	129.7	3	FB56P	919	2220	1448

All gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

# **1/3 HP—CLASS III**

## **DISCOUNT D-42a**

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$778	1165	14
	1170	1.50	3	FB56P	778	1205	17
	950	1.84	3	FB56P	778	1230	21
	780	2.25	3	FB56P	778	1250	26
	640	2.76	3	FB56P	778	1235	32
	520	3.38	3	FB56P	778	1255	39
	420	4.13	3	FB56P	778	1280	49
DOUBLE	350	5.06	3	FB56P	778	1270	58
	280	6.20	3	FB56P	883	1395	71
	230	7.59	3	FB56P	883	1490	87
	190	9.30	3	FB56P	883	1580	105
	155	11.4	3	FB56P	883	1695	129
	125	14.0	3	FB56P	883	1820	160
	100	17.1	3	FB56P	883	1960	200
TRIPLE	84	20.9	3	FB56P	883	2080	238
	68	25.6	3	FB56P	883	2210	294
	56	31.4	3	FB56P	919	2300	349
	45	38.4	3	FB56P	919	2300	434
	37	47.1	3	FB56P	919	2300	528
	30	57.7	3	FB56P	919	2300	651
	25	70.6	3	FB56P	919	2300	782
	20	86.5	3	FB56P	919	2140	977
	16.5	105.9	3	FB56P	919	1960	1184
	13.5	129.7	3	FB56P	919	1740	1448

- (1) At one shaft diameter from the shaft shoulder. Measured in lbs.
- (2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



# DODGE APG—1/2 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—  
60 Hz, 208-230/460 Volts AC  
Full Load Amps 1.8/9  
Totally Enclosed Fan Cooled

3 ft. lb. Brake (2)  
Add \$354 to List Price



## 1/2 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$788	1175	22
	1170	1.50	3	FB56P	788	1205	26
	950	1.84	3	FB56P	788	1235	32
	780	2.25	3	FB56P	788	1250	40
	640	2.76	3	FB56P	788	1235	48
	520	3.38	3	FB56P	788	1255	59
	420	4.13	3	FB56P	788	1280	74
	350	5.06	3	FB56P	788	1280	88
DOUBLE	280	6.20	3	FB56P	893	1395	108
	230	7.59	3	FB56P	893	1495	131
	190	9.30	3	FB56P	893	1580	159
	155	11.4	3	FB56P	893	1700	195
	125	14.0	3	FB56P	893	1820	242
	100	17.1	3	FB56P	893	1960	302
	84	20.9	3	FB56P	893	2080	360
	68	25.6	3	FB56P	893	2220	445
TRIPLE	56	31.4	3	FB56P	929	2300	529
	45	38.4	3	FB56P	929	2300	658
	37	47.1	3	FB56P	929	2300	800
	30	57.7	3	FB56P	929	2300	987
	25	70.6	3	FB56P	929	2300	1184
	20	86.5	3	FB56P	929	2300	1481
	16.5	105.9	3	FB56P	929	2300	1795
	13.5	129.7	3	FB56P	929	2140	2193

REFERENCES		
FEATURES	G9-3	NOMENCLATURE G9-7
DIMENSIONS	G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS	G9-12	WEIGHTS G9-60

# 1/2 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$788	1160	22
	1170	1.50	3	FB56P	788	1205	26
	950	1.84	3	FB56P	788	1230	32
	780	2.25	3	FB56P	788	1250	40
	640	2.76	3	FB56P	788	1235	48
	520	3.38	3	FB56P	788	1250	59
	420	4.13	3	FB56P	788	1275	74
DOUBLE	350	5.06	3	FB56P	788	1265	88
	280	6.20	3	FB56P	893	1395	108
	230	7.59	3	FB56P	893	1490	131
	190	9.30	3	FB56P	893	1580	159
	155	11.4	3	FB56P	893	1695	195
	125	14.0	3	FB56P	893	1820	242
	100	17.1	3	FB56P	893	1955	302
TRIPLE	84	20.9	3	FB56P	893	2070	360
	68	25.6	3	FB56P	893	2200	445
	56	31.4	3	FB56P	929	2300	529
	45	38.4	3	FB56P	929	2300	658
	37	47.1	3	FB56P	929	2300	800
	30	57.7	3	FB56P	929	2300	987
	25	70.6	3	FB56P	929	2250	1184
	20	86.5	3	FB56P	929	2080	1481
	16.5	105.9	3	FB56P	929	1880	1795
	13.5	129.7	3	FB56P	929	1630	2193

All gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

# 1/2 HP—CLASS III

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$788	1140	22
	1170	1.50	3	FB56P	788	1190	26
	950	1.84	3	FB56P	788	1230	32
	780	2.25	3	FB56P	788	1250	40
	640	2.76	3	FB56P	788	1230	48
	520	3.38	3	FB56P	788	1245	59
	420	4.13	3	FB56P	788	1275	74
DOUBLE	350	5.06	3	FB56P	893	1300	86
	280	6.20	3	FB56P	893	1395	108
	230	7.59	3	FB56P	893	1480	131
	190	9.30	3	FB56P	893	1570	159
	155	11.4	3	FB56P	893	1680	195
	125	14.0	3	FB56P	893	1800	242
	100	17.1	3	FB56P	893	1940	302
TRIPLE	84	20.9	3	FB56P	893	2040	360
	68	25.6	3	FB56P	893	2180	445
	56	31.4	3	FB56P	929	2300	529
	45	38.4	3	FB56P	929	2300	658
	37	47.1	3	FB56P	929	2140	800
	30	57.7	3	FB56P	929	1990	987
	25	70.6	3	FB56P	929	1840	1184
	20	86.5	3	FB56P	929	1580	1481
	16.5	105.9	4	FB56P	1447	2400	1795
	13.5	129.7	4	FB56P	1447	2400	2193

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

(2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



# DODGE APG—3/4 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—  
60 Hz, 208-230/460 Volts AC  
Full Load Amps 2.6/1.3  
Totally Enclosed Fan Cooled

3 ft. lb. Brake (2)  
Add \$354 to List Price



## 3/4 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$818	1160	32
	1170	1.50	3	FB56P	818	1195	40
	950	1.84	3	FB56P	818	1230	49
	780	2.25	3	FB56P	818	1250	59
	640	2.76	3	FB56P	818	1235	72
	520	3.38	3	FB56P	818	1245	89
	420	4.13	3	FB56P	818	1275	110
	350	5.06	3	FB56P	818	1260	132
DOUBLE	280	6.20	3	FB56P	923	1395	162
	230	7.59	3	FB56P	923	1480	197
	190	9.30	3	FB56P	923	1580	239
	155	11.4	3	FB56P	923	1690	293
	125	14.0	3	FB56P	923	1810	363
	100	17.1	3	FB56P	923	1970	454
	84	20.9	3	FB56P	923	2060	540
	68	25.6	3	FB56P	923	2200	667
TRIPLE	56	31.4	3	FB56P	959	2300	793
	45	38.4	3	FB56P	959	2300	987
	37	47.1	3	FB56P	959	2300	1200
	30	57.7	3	FB56P	959	2300	1481
	25	70.6	3	FB56P	959	2160	1777
	20	86.5	3	FB56P	959	2000	2221
	16.5	105.9	3	FB56P	959	1810	2692
	13.5	129.7	3	FB56P	959	1500	3290

REFERENCES		
FEATURES	G9-3	NOMENCLATURE G9-7
DIMENSIONS	G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS	G9-12	WEIGHTS G9-60

### 3/4 HP—CLASS II

### DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$ 818	1140	32
	1170	1.50	3	FB56P	818	1185	40
	950	1.84	3	FB56P	818	1225	49
	780	2.25	3	FB56P	818	1250	59
	640	2.76	3	FB56P	818	1230	72
	520	3.38	3	FB56P	818	1245	89
	420	4.13	3	FB56P	818	1275	110
DOUBLE	350	5.06	3	FB56P	923	1280	130
	280	6.20	3	FB56P	923	1380	162
	230	7.59	3	FB56P	923	1480	197
	190	9.30	3	FB56P	923	1570	239
	155	11.4	3	FB56P	923	1680	293
	125	14.0	3	FB56P	923	1800	363
	100	17.1	3	FB56P	923	1940	454
	84	20.9	3	FB56P	923	2040	540
TRIPLE	68	25.6	3	FB56P	923	2180	667
	56	31.4	3	FB56P	959	2300	793
	45	38.4	3	FB56P	959	2200	987
	37	47.1	3	FB56P	959	2100	1200
	30	57.7	3	FB56P	959	1930	1481
	25	70.6	3	FB56P	959	1660	1777
	20	86.5	3	FB56P	959	1500	2221
	16.5	105.9	4	FB56P	1477	2400	2692
	13.5	129.7	4	FB56P	1477	2400	3290

All gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

### 3/4 HP—CLASS III

### DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$ 818	1115	32
	1170	1.50	3	FB56P	818	1155	40
	950	1.84	3	FB56P	818	1190	49
	780	2.25	3	FB56P	818	1230	59
	640	2.76	3	FB56P	818	1205	72
	520	3.38	3	FB56P	818	1205	89
DOUBLE	420	4.13	3	FB56P	923	1220	108
	350	5.06	3	FB56P	923	1280	130
	280	6.20	3	FB56P	923	1380	162
	230	7.59	3	FB56P	923	1470	197
	190	9.30	3	FB56P	923	1560	239
	155	11.4	3	FB56P	923	1660	293
	125	14.0	3	FB56P	923	1780	363
	100	17.1	3	FB56P	923	1910	454
	84	20.9	3	FB56P	923	2010	540
	68	25.6	3	FB56P	923	2170	667
TRIPLE	56	31.4	3	FB56P	959	2100	793
	45	38.4	3	FB56P	959	1960	987
	37	47.1	3	FB56P	959	1780	1200
	30	57.7	3	FB56P	959	1540	1481
	25	70.6	4	FB56P	1477	2400	1777
	20	86.5	4	FB56P	1477	2400	2221
	16.5	105.9	4	FB56P	1477	2200	2692
	13.5	129.7	5	FB56P	2090	3600	3290

- (1) At one shaft diameter from the shaft shoulder. Measured in lbs.
- (2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



# DODGE APG—1 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 208-230/460 Volts AC  
Full Load Amps 3.0/1.5  
Totally Enclosed Fan Cooled

3 ft. lb. Brake (2)  
Add \$354 to List Price



## 1 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$ 831	1140	43
	1170	1.50	3	FB56P	831	1190	53
	950	1.84	3	FB56P	831	1230	65
	780	2.25	3	FB56P	831	1250	79
	640	2.76	3	FB56P	831	1230	96
	520	3.38	3	FB56P	831	1245	119
	420	4.13	3	FB56P	831	1275	147
	350	5.06	3	FB56P	831	1225	176
DOUBLE	280	6.20	3	FB56P	936	1395	216
	230	7.59	3	FB56P	936	1480	263
	190	9.30	3	FB56P	936	1540	318
	155	11.4	3	FB56P	936	1680	390
	125	14.0	3	FB56P	936	1800	484
	100	17.1	3	FB56P	936	1940	605
	84	20.9	3	FB56P	936	2040	720
	68	25.6	3	FB56P	936	2180	889
TRIPLE	56	31.4	3	FB56P	972	2300	1058
	45	38.4	3	FB56P	972	2300	1316
	37	47.1	3	FB56P	972	2140	1601
	30	57.7	3	FB56P	972	1990	1974
	25	70.6	3	FB56P	972	1830	2369
	20	86.5	3	FB56P	972	1580	2961
	16.5	105.9	4	FB56P	1490	2400	3589
	13.5	129.7	4	FB56P	1490	2400	4387

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
DIMENSIONS G9-50		INSTALLATION/MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	

# 1 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$ 831	1120	43
	1170	1.50	3	FB56P	831	1160	53
	950	1.84	3	FB56P	831	1200	65
	780	2.25	3	FB56P	831	1240	79
	640	2.76	3	FB56P	831	1215	96
	520	3.38	3	FB56P	831	1215	119
DOUBLE	420	4.13	3	FB56P	936	1220	144
	350	5.06	3	FB56P	936	1280	173
	280	6.20	3	FB56P	936	1380	216
	230	7.59	3	FB56P	936	1470	263
	190	9.30	3	FB56P	936	1560	318
	155	11.4	3	FB56P	936	1670	390
	125	14.0	3	FB56P	936	1780	484
	100	17.1	3	FB56P	936	1910	605
	84	20.9	3	FB56P	936	2020	720
TRIPLE	68	25.6	3	FB56P	936	2150	889
	56	31.4	3	FB56P	972	2160	1058
	45	38.4	3	FB56P	972	2020	1316
	37	47.1	3	FB56P	972	1870	1601
	30	57.7	3	FB56P	972	1640	1974
	25	70.6	4	FB56P	1490	2400	2369
	20	86.5	4	FB56P	1490	2400	2961
	16.5	105.9	4	FB56P	1490	2400	3589
	13.5	129.7	5	FB56P	2103	3600	4387

All gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

# 1 HP—CLASS III

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB56P	\$ 831	1090	43
	1170	1.50	3	FB56P	831	1120	53
	950	1.84	3	FB56P	831	1155	65
	780	2.25	3	FB56P	831	1190	79
	640	2.76	3	FB56P	831	1155	96
	520	3.38	3	FB56P	831	1150	119
DOUBLE	420	4.13	3	FB56P	936	1220	144
	350	5.06	3	FB56P	936	1260	173
	280	6.20	3	FB56P	936	1370	216
	230	7.59	3	FB56P	936	1460	263
	190	9.30	3	FB56P	936	1550	318
	155	11.4	3	FB56P	936	1630	390
	125	14.0	3	FB56P	936	1760	484
	100	17.1	3	FB56P	936	1880	605
	84	20.9	3	FB56P	936	1970	720
TRIPLE	68	25.6	3	FB56P	936	1900	889
	56	31.4	3	FB56P	972	1760	1058
	45	38.4	3	FB56P	972	1530	1316
	37	47.1	4	FB56P	1490	2400	1601
	30	57.7	4	FB56P	1490	2400	1974
	25	70.6	4	FB56P	1490	2400	2369
	20	86.5	4	FB56P	1490	2040	2961
	16.5	105.9	5	FB56P	2103	3600	3589
	13.5	129.7	5	FB56P	2103	3600	4387

- (1) At one shaft diameter from the shaft shoulder. Measured in lbs.
- (2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



# DODGE APG—1½ HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 208-230/460 Volts AC  
Full Load Amps 5.0/2.5  
Totally Enclosed Fan Cooled

6 ft. lb. Brake (2)  
Add \$402 to List Price



## 1½ HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB143P	\$838	1115	65
	1170	1.50	3	FB143P	838	1155	79
	950	1.84	3	FB143P	838	1190	97
	780	2.25	3	FB143P	838	1230	119
	640	2.76	3	FB143P	838	1205	145
	520	3.38	3	FB143P	838	1200	178
DOUBLE	420	4.13	3	FB143P	943	1220	216
	350	5.06	3	FB143P	943	1280	259
	280	6.20	3	FB143P	943	1380	324
	230	7.59	3	FB143P	943	1470	394
	190	9.30	3	FB143P	943	1560	477
	155	11.4	3	FB143P	943	1660	586
	125	14.0	3	FB143P	943	1780	726
	100	17.1	3	FB143P	943	1910	907
	84	20.9	3	FB143P	943	2010	1080
TRIPLE	68	25.6	3	FB143P	943	2170	1334
	56	31.4	3	FB143P	979	2100	1586
	45	38.4	3	FB143P	979	1960	1974
	37	47.1	3	FB143P	979	1780	2401
	30	57.7	3	FB143P	979	1540	2961
	25	70.6	4	FB143P	1497	2400	3553
	20	86.5	4	FB143P	1497	2400	4442
	16.5	105.9	4	FB143P	1497	2200	5384
	13.5	129.7	5	FB143P	2110	3600	6580

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
DIMENSIONS G9-50		INSTALLATION MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	

# 1½ HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB143P	\$ 838	1080	65
	1170	1.50	3	FB143P	838	1115	79
	950	1.84	3	FB143P	838	1175	97
	780	2.25	3	FB143P	838	1280	119
	640	2.76	3	FB143P	838	1145	145
	520	3.38	3	FB143P	838	1095	178
DOUBLE	420	4.13	3	FB143P	943	1220	216
	350	5.06	3	FB143P	943	1270	259
	280	6.20	3	FB143P	943	1370	324
	230	7.59	3	FB143P	943	1460	394
	190	9.30	3	FB143P	943	1540	477
	155	11.4	3	FB143P	943	1640	586
	125	14.0	3	FB143P	943	1750	726
	100	17.1	3	FB143P	943	1870	907
	84	20.9	3	FB143P	943	1960	1080
	68	25.6	3	FB143P	943	1810	1334
TRIPLE	56	31.4	3	FB143P	979	1770	1586
	45	38.4	3	FB143P	979	1550	1974
	37	47.1	4	FB143P	1497	2400	2401
	30	57.7	4	FB143P	1497	2400	2961
	25	70.6	4	FB143P	1497	2270	3553
	20	86.5	5	FB143P	2110	3600	4442
	16.5	105.9	5	FB143P	2110	3600	5384
	13.5	129.7	5	FB143P	2110	3600	6580

All gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

# 1½ HP—CLASS III

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FB143P	\$ 838	1025	65
	1170	1.50	3	FB143P	838	1055	79
	950	1.84	3	FB143P	838	1080	97
	780	2.25	3	FB143P	838	1095	119
	640	2.76	3	FB143P	838	1050	145
	520	3.38	3	FB143P	838	1025	178
DOUBLE	420	4.13	3	FB143P	943	1200	216
	350	5.06	3	FB143P	943	1260	259
	280	6.20	3	FB143P	943	1350	324
	230	7.59	3	FB143P	943	1430	394
	190	9.30	3	FB143P	943	1520	477
	155	11.4	3	FB143P	943	1600	586
	125	14.0	3	FB143P	943	1700	726
	100	17.1	3	FB143P	943	1840	907
	84	20.9	3	FB143P	943	1660	1080
	68	25.6	3	FB143P	943	1480	1334
TRIPLE	56	31.4	4	FB143P	1497	2400	1586
	45	38.4	4	FB143P	1497	2400	1974
	37	47.1	4	FB143P	1497	2400	2401
	30	57.7	5	FB143P	2110	3600	2961
	25	70.6	5	FB143P	2110	3600	3553
	20	86.5	5	FB143P	2110	3600	4442
	16.5	105.9	5	FB143P	2110	3600	5384
	13.5	129.7	6	FB143P	3164	5500	6580

- (1) At one shaft diameter from the shaft shoulder. Measured in lbs.
- (2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



# DODGE APG—2 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 208-230/460 Volts AC  
Full Load Amps 6.4/3.2  
Totally Enclosed Fan Cooled

6 ft. lb. Brake (2)  
Add \$402 to List Price

## 2 HP—CLASS I (See selection procedure, G9-9)

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FC145P	\$ 882	1090	86
	1170	1.50	3	FC145P	882	1120	106
	950	1.84	3	FC145P	882	1165	130
	780	2.25	3	FC145P	882	1190	158
	640	2.76	3	FC145P	882	1155	193
	520	3.38	3	FC145P	882	1150	237
DOUBLE	420	4.13	3	FC145P	987	1220	288
	350	5.06	3	FC145P	987	1260	346
	280	6.20	3	FC145P	987	1370	432
	230	7.59	3	FC145P	987	1460	526
	190	9.30	3	FC145P	987	1550	637
	155	11.4	3	FC145P	987	1630	780
	125	14.0	3	FC145P	987	1760	968
	100	17.1	3	FC145P	987	1880	1210
	84	20.9	3	FC145P	987	1970	1440
	68	25.6	3	FC145P	987	1900	1779
TRIPLE	56	31.4	3	FC145P	1023	1760	2115
	45	38.4	3	FC145P	1023	1530	2632
	37	47.1	4	FC145P	1541	2400	3201
	30	57.7	4	FC145P	1541	2400	3948
	25	70.6	4	FC145P	1541	2400	4738
	20	86.5	4	FC145P	1541	2040	5922
	16.5	105.9	5	FC145P	2154	3600	7178
	13.5	129.7	5	FC145P	2154	3600	8773

### REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

## 2 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FC145P	\$ 882	1040	86
	1170	1.50	3	FC145P	882	1065	106
	950	1.84	3	FC145P	882	1095	130
	780	2.25	3	FC145P	882	1125	158
	640	2.76	3	FC145P	882	1075	193
	520	3.38	3	FC145P	882	1140	237
DOUBLE	420	4.13	3	FC145P	987	1200	288
	350	5.06	3	FC145P	987	1260	346
	280	6.20	3	FC145P	987	1360	432
	230	7.59	3	FC145P	987	1440	526
	190	9.30	3	FC145P	987	1520	637
	155	11.4	3	FC145P	987	1610	780
	125	14.0	3	FC145P	987	1710	968
	100	17.1	3	FC145P	987	1820	1210
	84	20.9	3	FC145P	987	1780	1440
	68	25.6	3	FC145P	987	1570	1779
TRIPLE	56	31.4	4	FC145P	1541	2400	2115
	45	38.4	4	FC145P	1541	2400	2632
	37	47.1	4	FC145P	1541	2400	3201
	30	57.7	4	FC145P	1541	2040	3948
	25	70.6	5	FC145P	2154	3600	4738
	20	86.5	5	FC145P	2154	3600	5922
	16.5	105.9	5	FC145P	2154	3600	7178
	13.5	129.7	6	FC145P	3208	5500	8773

All gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 2 HP—CLASS III

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FC145P	\$ 882	965	86
	1170	1.50	3	FC145P	882	985	106
	950	1.84	3	FC145P	882	1005	130
	780	2.25	3	FC145P	882	1021	158
	640	2.76	3	FC145P	882	1018	193
	520	3.38	3	FC145P	882	1010	237
DOUBLE	420	4.13	3	FC145P	987	1200	288
	350	5.06	3	FC145P	987	1240	346
	280	6.20	3	FC145P	987	1330	432
	230	7.59	3	FC145P	987	1400	526
	190	9.30	3	FC145P	987	1480	637
	155	11.4	3	FC145P	987	1540	780
	125	14.0	3	FC145P	987	1640	968
	100	17.1	3	FC145P	987	1520	1210
	84	20.9	4	FC145P	1417	2400	1440
	68	25.6	4	FC145P	1417	2400	1779
TRIPLE	56	31.4	4	FC145P	1541	2400	2115
	45	38.4	5	FC145P	2154	3600	2632
	37	47.1	5	FC145P	2154	3600	3201
	30	57.7	5	FC145P	2154	3600	3948
	25	70.6	5	FC145P	2154	3600	4738
	20	86.5	5	FC145P	2154	3600	5922
	16.5	105.9	6	FC145P	3208	5500	7178
	13.5	129.7	6	FC145P	3208	5500	8773

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

(2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



## DODGE APG—3 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 8.4/4.2  
Totally Enclosed Fan Cooled

10 ft. lb. Brake (2)  
Add \$606 to List Price



### 3 HP—CLASS I (See Selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FE146P	\$ 976	1025	130
	1170	1.50	3	FE146P	976	1055	158
	950	1.84	3	FE146P	976	1080	195
	780	2.25	3	FE146P	976	1110	237
	640	2.76	3	FE146P	976	1050	289
	520	3.38	3	FE146P	976	1117	356
DOUBLE	420	4.13	3	FE146P	1081	1200	432
	350	5.06	3	FE146P	1081	1260	518
	280	6.20	3	FE146P	1081	1350	648
	230	7.59	3	FE146P	1081	1430	789
	190	9.30	3	FE146P	1081	1520	955
	155	11.4	3	FE146P	1081	1600	1171
	125	14.0	3	FE146P	1081	1700	1452
	100	17.1	3	FE146P	1081	1840	1814
	84	20.9	3	FE146P	1081	1660	2160
	68	25.6	3	FE146P	1081	1480	2668
TRIPLE	56	31.4	4	FE146P	1635	2400	3173
	45	38.4	4	FE146P	1635	2400	3948
	37	47.1	4	FE146P	1635	2180	4802
	30	57.7	5	FE146P	2248	3600	5922
	25	70.6	5	FE146P	2248	3600	7106
	20	86.5	5	FE146P	2248	3600	8883
	16.5	105.9	5	FE146P	2248	3600	10,767
	13.5	129.7	6	FE146P	3302	5500	13,160

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
DIMENSIONS G9-50		INSTALLATION/MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	

### 3 HP—CLASS II

### DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FE146P	\$ 976	950	130
	1170	1.50	3	FE146P	976	975	158
	950	1.84	3	FE146P	976	990	195
	780	2.25	3	FE146P	976	1005	237
	640	2.76	3	FE146P	976	1030	289
	520	3.38	3	FE146P	976	900	356
DOUBLE	420	4.13	3	FE146P	1081	1180	432
	350	5.06	3	FE146P	1081	1240	518
	280	6.20	3	FE146P	1081	1330	648
	230	7.59	3	FE146P	1081	1400	789
	190	9.30	3	FE146P	1081	1470	955
	155	11.4	3	FE146P	1081	1520	1171
	125	14.0	3	FE146P	1081	1620	1452
	100	17.1	3	FE146P	1081	1460	1814
	84	20.9	4	FE146P	1511	2350	2160
TRIPLE	68	25.6	4	FE146P	1511	2400	2668
	56	31.4	4	FE146P	1635	2400	3173
	45	38.4	5	FE146P	2248	3600	3948
	37	47.1	5	FE146P	2248	3600	4802
	30	57.7	5	FE146P	2248	3600	5922
	25	70.6	5	FE146P	2248	3600	7106
	20	86.5	6	FE146P	3302	5500	8883
	16.5	105.9	6	FE146P	3302	5550	10,767
	13.5	129.7	6	FE146P	3302	5500	13,160

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

### 3 HP—CLASS III

### DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FE146P	\$ 976	855	130
	1170	1.50	3	FE146P	976	855	158
	950	1.84	3	FE146P	976	852	195
	780	2.25	3	FE146P	976	847	237
	640	2.76	4	FE146P	1368	1090	289
	520	3.38	4	FE146P	1368	1105	356
DOUBLE	420	4.13	3	FE146P	1081	1160	432
	350	5.06	3	FE146P	1081	1200	518
	280	6.20	3	FE146P	1081	1280	648
	230	7.59	3	FE146P	1081	1310	789
	190	9.30	3	FE146P	1081	1370	955
	155	11.4	3	FE146P	1081	1360	1171
	125	14.0	4	FE146P	1511	2020	1452
	100	17.1	4	FE146P	1511	1890	1814
	84	20.9	4	FE146P	1511	2000	2160
TRIPLE	68	25.6	5	FE146P	2058	3550	2668
	56	31.4	5	FE146P	2248	3600	3173
	45	38.4	5	FE146P	2248	3600	3948
	37	47.1	5	FE146P	2248	3600	4802
	30	57.7	6	FE146P	3302	5500	5922
	25	70.6	6	FE146P	3302	5500	7106
	20	86.5	6	FE146P	3302	5500	8883
	16.5	105.9	6	FE146P	3302	5500	10,767
	13.5	129.7	7	184TY	5416	8730	13,160

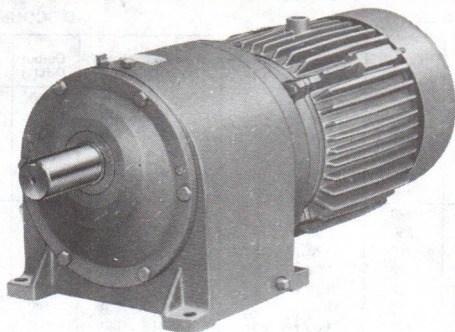
- (1) At one shaft diameter from the shaft shoulder. Measured in lbs.
- (2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



# DODGE APG—5 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 13.8/6.9  
Totally Enclosed Fan Cooled

15 ft. lb. Brake (2)  
Add \$691 to List Price



## 5 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FE147P	\$1082	915	216
	1170	1.50	3	FE147P	1082	925	264
	950	1.84	3	FE147P	1082	935	325
	780	2.25	3	FE147P	1082	935	396
	640	2.76	3	FE147P	1082	920	482
	520	3.38	4	FE147P	1474	1113	594
DOUBLE	420	4.13	3	FE147P	1187	1180	720
	350	5.06	3	FE147P	1187	1220	864
	280	6.20	3	FE147P	1187	1310	1080
	230	7.59	3	FE147P	1187	1360	1315
	190	9.30	3	FE147P	1187	1440	1592
	155	11.4	3	FE147P	1187	1480	1951
	125	14.0	3	FE147P	1187	1470	2419
	100	17.1	4	FE147P	1617	2050	3024
	84	20.9	4	FE147P	1617	2230	3600
TRIPLE	68	25.6	5	FE147P	2164	3600	4447
	56	31.4	5	FE147P	2354	3600	5288
	45	38.4	5	FE147P	2354	3600	6580
	37	47.1	5	FE147P	2354	3600	8003
	30	57.7	5	FE147P	2354	3600	9,870
	25	70.6	6	FE147P	3408	5500	11,844
	20	86.5	6	FE147P	3408	5500	14,805
	16.5	105.9	6	FE147P	3408	5500	17,945
	13.5	129.7	6	FE147P	3408	5500	21,933

### REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

## 5 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FE147P	\$1082	780	216
	1170	1.50	3	FE147P	1082	795	264
	950	1.84	3	FE147P	1082	770	325
	780	2.25	3	FE147P	1082	755	396
	640	2.76	4	FE147P	1474	1083	482
	520	3.38	4	FE147P	1474	1097	594
DOUBLE	420	4.13	3	FE147P	1187	1160	720
	350	5.06	3	FE147P	1187	1180	864
	280	6.20	3	FE147P	1187	1240	1080
	230	7.59	3	FE147P	1187	1270	1315
	190	9.30	3	FE147P	1187	1320	1592
	155	11.4	3	FE147P	1187	1250	1951
	125	14.0	4	FE147P	1617	1900	2419
	100	17.1	4	FE147P	1617	1650	3024
	84	20.9	4	FE147P	1617	1660	3600
TRIPLE	68	25.6	5	FE147P	2164	3450	4447
	56	31.4	5	FE147P	2354	3600	5288
	45	38.4	5	FE147P	2354	3600	6580
	37	47.1	6	FE147P	3408	5500	8003
	30	57.7	6	FE147P	3408	5500	9,870
	25	70.6	6	FE147P	3408	5500	11,844
	20	86.5	6	FE147P	3408	5500	14,805
	16.5	105.9	7	184TY	5461	8730	17,945
	13.5	129.7	7	184TY	5461	8730	21,933

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 5 HP—CLASS III

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	FE147P	\$1082	592	216
	1170	1.50	3	FE147P	1082	558	264
	950	1.84	4	FE147P	1474	1040	325
	780	2.25	4	FE147P	1474	995	396
	640	2.76	4	FE147P	1474	990	482
	520	3.38	5	FE147P	1954	1200	594
DOUBLE	420	4.13	3	FE147P	1187	1060	720
	350	5.06	3	FE147P	1187	1080	864
	280	6.20	3	FE147P	1187	1080	1080
	230	7.59	3	FE147P	1187	1030	1315
	190	9.30	4	FE147P	1617	1650	1592
	155	11.4	4	FE147P	1617	1510	1951
	125	14.0	4	FE147P	1617	1240	2419
	100	17.1	5	FE147P	2164	2950	3024
	84	20.9	5	FE147P	2164	3130	3600
TRIPLE	68	25.6	5	FE147P	2164	3250	4447
	56	31.4	6	FE147P	3408	4750	5288
	45	38.4	6	FE147P	3408	5000	6580
	37	47.1	6	FE147P	3408	5200	8003
	30	57.7	6	FE147P	3408	5300	9,870
	25	70.6	7	184TY	5461	8650	11,844
	20	86.5	7	184TY	5461	8730	14,805
	16.5	105.9	7	184TY	5461	8730	17,945
	13.5	129.7	7	184TY	5461	8730	21,933

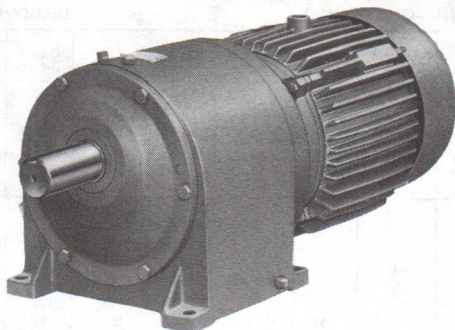
(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

(2) Brake coils are single phase, 60 Hz, 230/460 volts AC.



# DODGE APG—7½ HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 20/10  
Totally Enclosed Fan Cooled



## 7½ HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	184TY	\$1474	770	324
	1170	1.50	3	184TY	1474	760	396
	950	1.84	3	184TY	1474	725	487
	780	2.25	4	184TY	1866	1067	594
	640	2.76	4	184TY	1866	1080	724
DOUBLE	520	3.38	4	184TY	1866	1093	890
	420	4.13	3	184TY	1579	1120	1080
	350	5.06	3	184TY	1579	1160	1296
	280	6.20	3	184TY	1579	1210	1620
	230	7.59	3	184TY	1579	1220	1972
	190	9.30	3	184TY	1579	1250	2387
	155	11.4	4	184TY	2009	1840	2926
	125	14.0	4	184TY	2009	1820	3629
	100	17.1	4	184TY	2009	1490	4536
	84	20.9	5	184TY	2556	3030	5400
TRIPLE	68	25.6	5	184TY	2556	3400	6671
	56	31.4	5	184TY	2746	3550	7931
	45	38.4	6	184TY	3800	5250	9,870
	37	47.1	6	184TY	3800	5450	12,004
	30	57.7	6	184TY	3800	5500	14,805
	25	70.6	6	184TY	3800	5500	17,766
	20	86.5	7	184TY	5506	8730	22,208
	16.5	105.9	7	184TY	5506	8730	26,918
	13.5	129.7	7	184TY	5506	8730	32,900

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
DIMENSIONS G9-50		INSTALLATION/MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	

# 7½ HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	184TY	\$1474	555	324
	1170	1.50	3	184TY	1474	550	396
	950	1.84	4	184TY	1866	1005	487
	780	2.25	4	184TY	1866	945	594
	640	2.76	4	184TY	1866	832	724
	520	3.38	5	184TY	2346	1200	890
DOUBLE	420	4.13	3	184TY	1579	1060	1080
	350	5.06	3	184TY	1579	1080	1296
	280	6.20	3	184TY	1579	1000	1620
	230	7.59	4	184TY	2009	1600	1972
	190	9.30	4	184TY	2009	1600	2387
	155	11.4	4	184TY	2009	1420	2926
	125	14.0	4	184TY	2009	1020	3629
	100	17.1	5	184TY	2556	2950	4536
	84	20.9	5	184TY	2556	3100	5400
TRIPLE	68	25.6	5	184TY	2556	3200	6671
	56	31.4	6	184TY	3800	5500	7931
	45	38.4	6	184TY	3800	4950	9,870
	37	47.1	6	184TY	3800	5100	12,004
	30	57.7	6	184TY	3800	5200	14,805
	25	70.6	7	184TY	5506	8550	17,766
	20	86.5	7	184TY	5506	8730	22,208
	16.5	105.9	7	184TY	5506	8730	26,918
	13.5	129.7	7	184TY	5506	8730	32,900

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

# 7½ HP—CLASS III

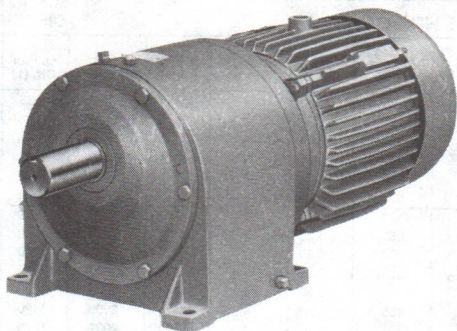
## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	4	184TY	\$1866	785	324
	1170	1.50	4	184TY	1866	710	396
	950	1.84	5	184TY	2346	1135	487
	780	2.25	5	184TY	2346	1153	594
	640	2.76	5	184TY	2346	1170	724
	520	3.38	5	184TY	2346	1190	890
DOUBLE	420	4.13	4	184TY	2009	1200	1080
	350	5.06	4	184TY	2009	1180	1296
	280	6.20	4	184TY	2009	1270	1620
	230	7.59	4	184TY	2009	1210	1972
	190	9.30	5	184TY	2556	2400	2387
	155	11.4	5	184TY	2556	2500	2926
	125	14.0	5	184TY	2556	2550	3629
	100	17.1	5	184TY	2556	2600	4536
	84	20.9	6	184TY	3536	4000	5400
TRIPLE	68	25.6	6	184TY	3536	4250	6671
	56	31.4	6	184TY	3800	4400	7931
	45	38.4	7	184TY	5506	7000	9,870
	37	47.1	7	184TY	5506	7400	12,004
	30	57.7	7	184TY	5506	7650	14,805
	25	70.6	7	184TY	5506	7900	17,766
	20	86.5	8	184TY	11,191	12,000	22,208
	16.5	105.9	8	184TY	11,191	12,000	26,918
	13.5	129.7	8	184TY	11,191	12,000	32,900

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—10 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 27/13.5  
Totally Enclosed Fan Cooled

## 10 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	3	210TY	\$1592	600	432
	1170	1.50	3	210TY	1592	560	528
	950	1.84	4	210TY	1984	1040	650
	780	2.25	4	210TY	1984	995	792
	640	2.76	4	210TY	1984	900	965
	520	3.38	5	210TY	2464	1200	1187
DOUBLE	420	4.13	3	210TY	1697	1070	1440
	350	5.06	3	210TY	1697	1100	1728
	280	6.20	3	210TY	1697	1060	2160
	230	7.59	3	210TY	1697	980	2630
	190	9.30	4	210TY	2127	1650	3183
	155	11.4	4	210TY	2127	1510	3902
	125	14.0	4	210TY	2127	1240	4838
	100	17.1	5	210TY	2674	2950	6048
	84	20.9	5	210TY	2674	3120	7200
TRIPLE	68	25.6	5	210TY	2674	3250	8894
	56	31.4	6	210TY	3918	4750	10,575
	45	38.4	6	210TY	3918	5000	13,160
	37	47.1	6	210TY	3918	5150	16,005
	30	57.7	6	210TY	3918	5300	19,740
	25	70.6	7	210TY	5624	8650	23,688
	20	86.5	7	210TY	5624	8730	29,610
	16.5	105.9	7	210TY	5624	8730	35,891
	13.5	129.7	7	210TY	5624	8730	43,867

REFERENCES			
FEATURES	G9-3	NOMENCLATURE	G9-7
DIMENSIONS	G9-50	INSTALLATION/MAINTENANCE	G9-108
MOUNTING POSITIONS	G9-12	WEIGHTS	G9-60

## 10 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	4	210TY	\$1984	845	432
	1170	1.50	4	210TY	1984	788	528
	950	1.84	4	210TY	1984	700	650
	780	2.25	5	210TY	2464	1155	792
	640	2.76	5	210TY	2464	1173	965
	520	3.38	5	210TY	2464	1190	1187
DOUBLE	420	4.13	4	210TY	2127	1300	1440
	350	5.06	4	210TY	2127	1300	1728
	280	6.20	4	210TY	2127	1340	2160
	230	7.59	4	210TY	2127	1340	2630
	190	9.30	4	210TY	2127	1080	3183
	155	11.4	5	210TY	2674	2550	3902
	125	14.0	5	210TY	2674	2600	4838
	100	17.1	5	210TY	2674	2700	6048
	84	20.9	5	210TY	2674	2800	7200
	68	25.6	6	210TY	3654	4300	8894
TRIPLE	56	31.4	6	210TY	3918	4450	10,575
	45	38.4	6	210TY	3918	4550	13,160
	37	47.1	7	210TY	5624	7500	16,005
	30	57.7	7	210TY	5624	7800	19,740
	25	70.6	7	210TY	5624	8000	23,688
	20	86.5	7	210TY	5624	8250	29,610
	16.5	105.9	8	210TY	11,309	12,000	35,891
	13.5	129.7	8	210TY	11,309	12,000	43,867

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 10 HP—CLASS III

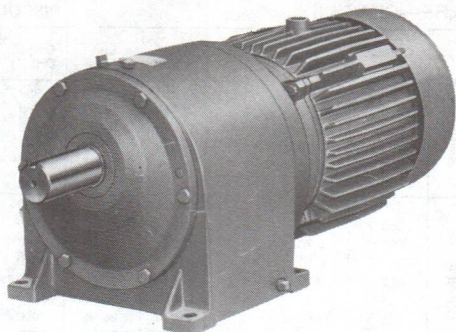
## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	4	210TY	\$1984	440	432
	1170	1.50	4	210TY	1984	450	528
	950	1.84	5	210TY	2464	1125	650
	780	2.25	5	210TY	2464	1145	792
	640	2.76	5	210TY	2464	1160	965
	520	3.38	6	210TY	3289	2250	1187
DOUBLE	420	4.13	4	210TY	2127	1000	1440
	350	5.06	4	210TY	2127	900	1728
	280	6.20	4	210TY	2127	600	2160
	230	7.59	5	210TY	2674	2170	2630
	190	9.30	5	210TY	2674	2200	3183
	155	11.4	5	210TY	2674	2170	3902
	125	14.0	5	210TY	2674	2100	4838
	100	17.1	6	210TY	3654	3700	6048
	84	20.9	6	210TY	3654	3750	7200
	68	25.6	6	210TY	3654	3900	8894
TRIPLE	56	31.4	7	210TY	5624	6400	10,575
	45	38.4	7	210TY	5624	6700	13,160
	37	47.1	7	210TY	5624	6900	16,005
	30	57.7	7	210TY	5624	7000	19,740
	25	70.6	8	210TY	11,309	12,000	23,688
	20	86.5	8	210TY	11,309	12,000	29,610
	16.5	105.9	8	210TY	11,309	12,000	35,891
	13.5	129.7	8	210TY	11,309	12,000	43,867

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—15 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 38.4/19.2  
Totally Enclosed Fan Cooled

## 15 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	4	215TY	\$ 2442	785	648
	1170	1.50	4	215TY	2442	710	792
	950	1.84	4	215TY	2442	595	975
	780	2.25	5	215TY	2922	1153	1187
	640	2.76	5	215TY	2922	1170	1447
	520	3.38	5	215TY	2922	1190	1781
DOUBLE	420	4.13	4	215TY	2585	1250	2160
	350	5.06	4	215TY	2585	1260	2592
	280	6.20	4	215TY	2585	1280	3240
	230	7.59	4	215TY	2585	1200	3944
	190	9.30	4	215TY	2585	840	4775
	155	11.4	5	215TY	3132	2500	5853
	125	14.0	5	215TY	3132	2550	7258
	100	17.1	5	215TY	3132	2600	9072
	84	20.9	6	215TY	4112	4000	10,800
	68	25.6	6	215TY	4112	4250	13,341
TRIPLE	56	31.4	6	215TY	4376	4400	15,863
	45	38.4	7	215TY	6082	7050	19,740
	37	47.1	7	215TY	6082	7400	24,008
	30	57.7	7	215TY	6082	7700	29,610
	25	70.6	7	215TY	6082	7900	35,532
	20	86.5	8	215TY	11,767	12,000	44,415
	16.5	105.9	8	215TY	11,767	12,000	53,836
	13.5	129.7	8	215TY	11,767	12,000	65,800

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

## 15 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	4	215TY	\$ 2442	480	648
	1170	1.50	5	215TY	2922	1102	792
	950	1.84	5	215TY	2922	1125	975
	780	2.25	5	215TY	2922	1143	1187
	640	2.76	5	215TY	2922	1160	1447
	520	3.38	6	215TY	3747	2245	1781
DOUBLE	420	4.13	4	215TY	2585	950	2160
	350	5.06	5	215TY	3132	2000	2592
	280	6.20	5	215TY	3132	2050	3240
	230	7.59	5	215TY	3132	2050	3944
	190	9.30	5	215TY	3132	2050	4775
	155	11.4	5	215TY	3132	2050	5853
	125	14.0	5	215TY	3132	1900	7258
	100	17.1	6	215TY	4112	3150	9072
	84	20.9	6	215TY	4112	3700	10,800
	68	25.6	6	215TY	4112	3750	13,341
TRIPLE	56	31.4	7	215TY	6082	6400	15,863
	45	38.4	7	215TY	6082	6600	19,740
	37	47.1	7	215TY	6082	6750	24,008
	30	57.7	7	215TY	6082	6900	29,610
	25	70.6	8	215TY	11,767	12,000	35,532
	20	86.5	8	215TY	11,767	12,000	44,415
	16.5	105.9	8	215TY	11,767	12,000	53,836

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 15 HP—CLASS III

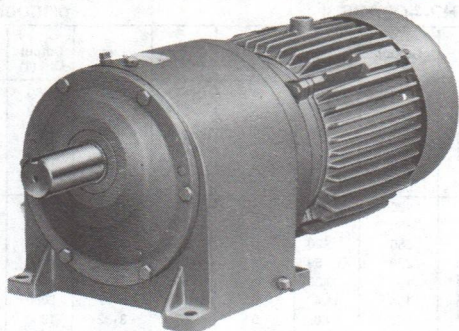
## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	5	215TY	\$ 2922	1060	648
	1170	1.50	5	215TY	2922	1071	792
	950	1.84	5	215TY	2922	1105	975
	780	2.25	6	215TY	3747	2155	1187
	640	2.76	6	215TY	3747	2185	1447
	520	3.38	6	215TY	3747	2213	1781
DOUBLE	420	4.13	5	215TY	3132	1800	2160
	350	5.06	5	215TY	3132	1850	2592
	280	6.20	5	215TY	3132	1750	3240
	230	7.59	5	215TY	3132	1650	3944
	190	9.30	5	215TY	3132	1300	4775
	155	11.4	6	215TY	4112	3050	5853
	125	14.0	6	215TY	4112	3150	7258
	100	17.1	6	215TY	4112	3200	9072
	84	20.9	7	215TY	5635	5450	10,800
	68	25.6	7	215TY	5635	5650	13,341
TRIPLE	56	31.4	7	215TY	6082	5750	15,863
	45	38.4	8	215TY	11,767	12,000	19,740
	37	47.1	8	215TY	11,767	12,000	24,008
	30	57.7	8	215TY	11,767	12,000	29,610
	25	70.6	8	215TY	11,767	12,000	35,532
	20	86.5	8	215TY	11,767	12,000	44,415

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—20 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 50/25  
Totally Enclosed Fan Cooled

## 20 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	4	256TY	\$ 3140	441	863
	1170	1.50	4	256TY	3140	450	1055
	950	1.84	5	256TY	3620	1110	1300
	780	2.25	5	256TY	3620	1145	1583
	640	2.76	5	256TY	3620	1160	1929
	520	3.38	6	256TY	4445	2250	2375
DOUBLE	420	4.13	4	256TY	3283	1000	2880
	350	5.06	4	256TY	3283	900	3456
	280	6.20	4	256TY	3283	640	4320
	230	7.59	5	256TY	3830	2200	5259
	190	9.30	5	256TY	3830	2250	6366
	155	11.4	5	256TY	3830	2200	7804
	125	14.0	5	256TY	3830	2050	9,677
	100	17.1	6	256TY	4810	3700	12,096
	84	20.9	6	256TY	4810	3750	14,400
TRIPLE	68	25.6	6	256TY	4810	3650	17,788
	56	31.4	7	256TY	6780	6400	21,150
	45	38.4	7	256TY	6780	6700	26,320
	37	47.1	7	256TY	6780	6900	32,011
	30	57.7	7	256TY	6780	7000	39,480
	25	70.6	8	256TY	12,465	12,000	47,376
	20	86.5	8	256TY	12,465	12,000	59,220
	16.5	105.9	8	256TY	12,465	12,000	71,782
	13.5	129.7	8	256TY	12,465	12,000	87,733

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
DIMENSIONS G9-50		INSTALLATION/MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	

## 20 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	5	256TY	\$ 3620	1066	863
	1170	1.50	5	256TY	3620	1079	1055
	950	1.84	5	256TY	3620	1110	1300
	780	2.25	6	256TY	4445	2160	1583
	640	2.76	6	256TY	4445	2190	1929
	520	3.38	6	256TY	4445	2220	2375
DOUBLE	420	4.13	5	256TY	3830	1850	2880
	350	5.06	5	256TY	3830	1890	3456
	280	6.20	5	256TY	3830	1800	4320
	230	7.59	5	256TY	3830	1770	5259
	190	9.30	5	256TY	3830	1500	6366
	155	11.4	6	256TY	4810	3100	7804
	125	14.0	6	256TY	4810	3200	9,677
	100	17.1	6	256TY	4810	3300	12,096
	84	20.9	7	256TY	6333	5550	14,400
	68	25.6	7	256TY	6333	5750	17,788
TRIPLE	56	31.4	7	256TY	6780	5900	21,150
	45	38.4	8	256TY	12,465	12,000	26,320
	37	47.1	8	256TY	12,465	12,000	32,011
	30	57.7	8	256TY	12,465	12,000	39,480
	25	70.6	8	256TY	12,465	12,000	47,376
	20	86.5	8	256TY	12,465	12,000	59,220

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 20 HP—CLASS III

## DISCOUNT D-42a

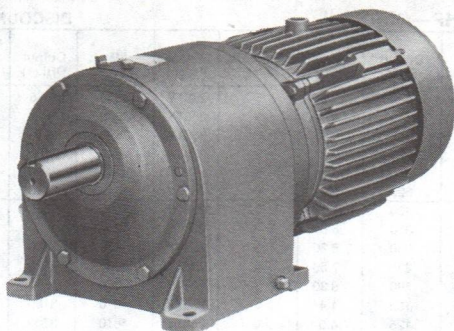
	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	5	256TY	\$ 3620	1015	863
	1170	1.50	6	256TY	4445	2070	1055
	950	1.84	6	256TY	4445	2103	1300
	780	2.25	6	256TY	4445	2131	1583
	640	2.76	7	256TY	5740	3451	1929
	520	3.38	7	256TY	5740	3500	2375
DOUBLE	420	4.13	5	256TY	3830	1720	2880
	350	5.06	6	256TY	4810	2300	3456
	280	6.20	6	256TY	4810	2950	4320
	230	7.59	6	256TY	4810	2700	5259
	190	9.30	6	256TY	4810	2750	6366
	155	11.4	6	256TY	4810	2800	7804
	125	14.0	7	256TY	6333	4750	9,677
	100	17.1	7	256TY	6333	4950	12,096
	84	20.9	7	256TY	6333	5050	14,400
	68	25.6	7	256TY	6333	5100	17,788
TRIPLE	56	31.4	8	256TY	12,465	11,500	21,150
	45	38.4	8	256TY	12,465	11,500	26,320
	37	47.1	8	256TY	12,465	11,200	32,011
	30	57.7	8	256TY	12,465	10,500	39,480

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—25 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 64/32  
Totally Enclosed Fan Cooled



## 25 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	5	286TY	\$ 3883	1075	1079
	1170	1.50	5	286TY	3883	1090	1319
	950	1.84	5	286TY	3883	1115	1625
	780	2.25	5	286TY	3883	1135	1979
	640	2.76	6	286TY	4708	2200	2412
	520	3.38	6	286TY	4708	2230	2968
DOUBLE	420	4.13	5	286TY	4093	1875	3600
	350	5.06	5	286TY	4093	1900	4320
	280	6.20	5	286TY	4093	1950	5400
	230	7.59	5	286TY	4093	1950	6574
	190	9.30	5	286TY	4093	1800	7958
	155	11.4	5	286TY	4093	1600	9,755
	125	14.0	6	286TY	5073	3300	12,096
	100	17.1	6	286TY	5073	3450	15,120
	84	20.9	6	286TY	5073	3500	18,000
TRIPLE	68	25.6	7	286TY	6596	5900	22,235
	56	31.4	7	286TY	7043	6100	26,438
	45	38.4	7	286TY	7043	6300	32,900
	37	47.1	8	286TY	12,728	12,000	40,014
	30	57.7	8	286TY	12,728	12,000	49,350
	25	70.6	8	286TY	12,728	12,000	59,220
	20	86.5	8	286TY	12,728	12,000	74,025

### REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

## 25 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	5	286TY	\$ 3883	1040	1079
	1170	1.50	5	286TY	3883	1048	1319
	950	1.84	6	286TY	4708	2114	1625
	780	2.25	6	286TY	4708	2143	1979
	640	2.76	6	286TY	4708	2170	2412
	520	3.38	7	286TY	6003	3518	2968
DOUBLE	420	4.13	5	286TY	4093	1750	3600
	350	5.06	5	286TY	4093	1900	4320
	280	6.20	5	286TY	4093	1450	5400
	230	7.59	5	286TY	4093	1200	6574
	190	9.30	6	286TY	5073	2850	7958
	155	11.4	6	286TY	5073	2900	9,755
	125	14.0	6	286TY	5073	2950	12,096
	100	17.1	7	286TY	6596	5100	15,120
	84	20.9	7	286TY	6596	5250	18,000
TRIPLE	68	25.6	7	286TY	6596	5350	22,235
	56	31.4	8	286TY	12,728	12,000	26,438
	45	38.4	8	286TY	12,728	12,000	32,900
	37	47.1	8	286TY	12,728	12,000	40,014
	30	57.7	8	286TY	12,728	11,750	49,350
	25	70.6	8	286TY	12,728	11,100	59,220

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 25 HP—CLASS III

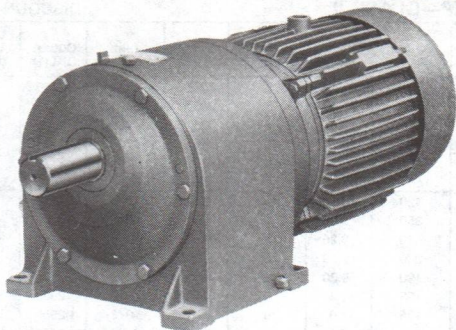
## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	6	286TY	\$ 4708	2022	1079
	1170	1.50	6	286TY	4708	2052	1319
	950	1.84	6	286TY	4708	2080	1625
	780	2.25	7	286TY	6003	3365	1979
	640	2.76	7	286TY	6003	3420	2412
	520	3.38	7	286TY	6003	3465	2968
DOUBLE	420	4.13	6	286TY	5073	2300	3600
	350	5.06	6	286TY	5073	2350	4320
	280	6.20	6	286TY	5073	2450	5400
	230	7.59	6	286TY	5073	2500	6574
	190	9.30	6	286TY	5073	2600	7958
	155	11.4	7	286TY	6596	4350	9,755
	125	14.0	7	286TY	6596	4450	12,096
	100	17.1	7	286TY	6596	4550	15,120
	84	20.9	7	286TY	6596	4600	18,000
TRIPLE	68	25.6	8	286TY	12,016	10,750	22,235
	56	31.4	8	286TY	12,728	10,500	26,438
	45	38.4	8	286TY	12,728	10,000	32,900
	37	47.1	8	286TY	12,728	9250	40,014

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



## DODGE APG—30 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 74/37  
Totally Enclosed Fan Cooled

### 30 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	5	286TY	\$ 4024	1060	1295
	1170	1.50	5	286TY	4024	1070	1583
	950	1.84	5	286TY	4024	1103	1950
	780	2.25	6	286TY	4849	2155	2375
	640	2.76	6	286TY	4849	2185	2894
	520	3.38	6	286TY	4849	2213	3562
DOUBLE	420	4.13	5	286TY	4234	1840	4320
	350	5.06	5	286TY	4234	1900	5184
	280	6.20	5	286TY	4234	1750	6480
	230	7.59	5	286TY	4234	1650	7889
	190	9.30	5	286TY	4234	1300	9549
	155	11.4	6	286TY	5214	3050	11,706
	125	14.0	6	286TY	5214	3150	14,515
	100	17.1	6	286TY	5214	3200	18,144
	84	20.9	7	286TY	6737	5500	21,600
	68	25.6	7	286TY	6737	5650	26,682
TRIPLE	56	31.4	7	286TY	7184	5800	31,725
	45	38.4	8	286TY	12,869	12,000	39,480
	37	47.1	8	286TY	12,869	12,000	48,016
	30	57.7	8	286TY	12,869	12,000	59,220
	25	70.6	8	286TY	12,869	12,000	71,064

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

## 30 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	6	286TY	\$ 4849	2037	1295
	1170	1.50	6	286TY	4849	2067	1583
	950	1.84	6	286TY	4849	2098	1950
	780	2.25	6	286TY	4849	2156	2375
	640	2.76	7	286TY	6144	3445	2894
	520	3.38	7	286TY	6144	3492	3562
DOUBLE	420	4.13	6	286TY	5214	2380	4320
	350	5.06	6	286TY	5214	2450	5184
	280	6.20	6	286TY	5214	2600	6480
	230	7.59	6	286TY	5214	2650	7889
	190	9.30	6	286TY	5214	2700	9549
	155	11.4	6	286TY	5214	2750	11,706
	125	14.0	7	286TY	6737	4450	14,515
	100	17.1	7	286TY	6737	4850	18,144
	84	20.9	7	286TY	6737	4900	21,600
TRIPLE	68	25.6	7	286TY	6737	4950	26,682
	56	31.4	8	286TY	12,869	11,300	31,725
	45	38.4	8	286TY	12,869	11,200	39,480
	37	47.1	8	286TY	12,869	10,800	48,016
	30	57.7	8	286TY	12,869	10,000	59,220

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 30 HP—CLASS III

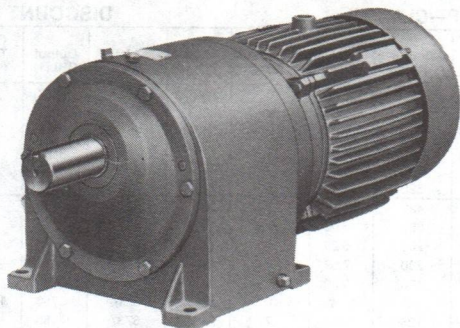
## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	6	286TY	\$ 4849	1920	1295
	1170	1.50	6	286TY	4849	1954	1583
	950	1.84	7	286TY	6144	3199	1950
	780	2.25	7	286TY	6144	3258	2375
	640	2.76	7	286TY	6144	3298	2894
	520	3.38	7	286TY	6144	3318	3562
DOUBLE	420	4.13	6	286TY	5214	2170	4320
	350	5.06	6	286TY	5214	2200	5184
	280	6.20	6	286TY	5214	2300	6480
	230	7.59	6	286TY	5214	2350	7889
	190	9.30	7	286TY	6737	3950	9549
	155	11.4	7	286TY	6737	4100	11,706
	125	14.0	7	286TY	6737	4200	14,515
	100	17.1	7	286TY	6737	4200	18,144
	84	20.9	8	286TY	12,157	10,000	21,600
TPL	56	31.4	8	286TY	12,869	9300	31,725
	45	38.4	8	286TY	12,869	8300	39,480

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—40 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 102/51  
Totally Enclosed Fan Cooled

## 40 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	6	326TY	\$ 5492	2040	1727
	1170	1.50	6	326TY	5492	2070	2111
	950	1.84	6	326TY	5492	2103	2600
	780	2.25	6	326TY	5492	2131	3166
	640	2.76	7	326TY	6787	3452	3859
	520	3.38	7	326TY	6787	3500	4749
DOUBLE	420	4.13	6	326TY	5857	2400	5760
	350	5.06	6	326TY	5857	2480	6912
	280	6.20	6	326TY	5857	2600	8640
	230	7.59	6	326TY	5857	2700	10,518
	190	9.30	6	326TY	5857	2750	12,733
	155	11.4	6	326TY	5857	2800	15,608
	125	14.0	7	326TY	7380	4750	19,354
	100	17.1	7	326TY	7380	4950	24,192
	84	20.9	7	326TY	7380	5050	28,800
TRIPLE	68	25.6	7	326TY	7380	5100	35,576
	56	31.4	8	326TY	13,512	11,900	42,300
	45	38.4	8	326TY	13,512	12,000	52,640
	37	47.1	8	326TY	13,512	12,000	64,022
	30	57.7	8	326TY	13,512	12,000	78,960

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

## 40 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	6	326TY	\$ 5492	1960	1727
	1170	1.50	6	326TY	5492	1997	2111
	950	1.84	7	326TY	6787	3239	2600
	780	2.25	7	326TY	6787	3301	3166
	640	2.76	7	326TY	6787	3347	3859
	520	3.38	7	326TY	6787	3378	4749
DOUBLE	420	4.13	6	326TY	5857	2250	5760
	350	5.06	6	326TY	5857	2270	6912
	280	6.20	6	326TY	5857	2350	8640
	230	7.59	6	326TY	5857	2400	10,518
	190	9.30	7	326TY	7380	4050	12,733
	155	11.4	7	326TY	7380	4200	15,608
	125	14.0	7	326TY	7380	4300	19,354
	100	17.1	7	326TY	7380	4350	24,192
	84	20.9	7	326TY	7380	4300	28,800
TPL	68	25.6	8	326TY	12,800	10,300	35,576
	56	31.4	8	326TY	13,512	9800	42,300
	45	38.4	8	326TY	13,512	9000	52,640

Most gearmotors are available with flange mount. To price, note reduction and case size, then refer to page G9-112 for the list price addition.

## 40 HP—CLASS III

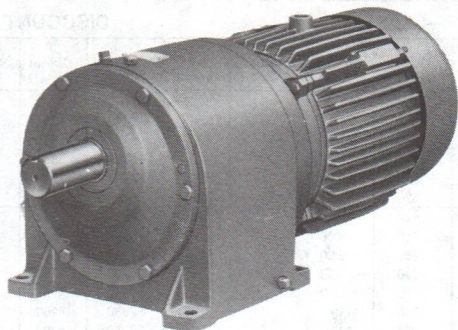
## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	7	326TY	\$ 6787	2873	1727
	1170	1.50	7	326TY	6787	2935	2111
	950	1.84	7	326TY	6787	2993	2600
	780	2.25	7	326TY	6787	3042	3166
	640	2.76	7	326TY	6787	3050	3859
	520	3.38	8	326TY	11,276	4381	4749
DOUBLE	420	4.13	7	326TY	7380	3160	5760
	350	5.06	7	326TY	7380	3300	6912
	280	6.20	7	326TY	7380	3500	8640
	230	7.59	7	326TY	7380	3550	10,518
	190	9.30	7	326TY	7380	3550	12,733
	155	11.4	7	326TY	7380	3600	15,608
	125	14.0	7	326TY	7380	3600	19,354
	100	17.1	8	326TY	12,800	9000	24,192
	84	20.9	8	326TY	12,800	8750	28,800

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—50 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 124/62  
Totally Enclosed Fan Cooled

## 50 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	7	326TY	\$ 6835	3170	2159
	1170	1.50	7	326TY	6835	3220	2638
	950	1.84	7	326TY	6835	3300	3249
	780	2.25	7	326TY	6835	3365	3958
	640	2.76	7	326TY	6835	3421	4823
	520	3.38	7	326TY	6835	3465	5937
DOUBLE	420	4.13	7	326TY	6835	3550	7350
	350	5.06	7	326TY	7428	3650	8640
	280	6.20	7	326TY	7428	3825	10,800
	230	7.59	7	326TY	7428	4050	13,148
	190	9.30	7	326TY	7428	4200	15,916
	155	11.4	7	326TY	7428	4300	19,510
	125	14.0	7	326TY	7428	4500	24,192
	100	17.1	7	326TY	7428	4550	30,240
	84	20.9	7	326TY	7428	4600	36,000
TPL	68	25.6	8	326TY	12,848	11,750	44,471
	56	31.4	8	326TY	13,560	11,800	52,875
	45	38.4	8	326TY	13,560	12,000	65,800

### REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

## 50 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	7	326TY	\$ 6835	3000	2159
	1170	1.50	7	326TY	6835	3035	2638
	950	1.84	7	326TY	6835	3097	3249
	780	2.25	7	326TY	6835	2150	3958
	640	2.76	7	326TY	6835	3173	4823
	520	3.38	8	326TY	11,324	4407	5937
DOUBLE	420	4.13	7	326TY	7428	3350	7200
	350	5.06	7	326TY	7428	3500	8640
	280	6.20	7	326TY	7428	3650	10,800
	230	7.59	7	326TY	7428	3700	13,148
	190	9.30	7	326TY	7428	3750	15,916
	155	11.4	7	326TY	7428	3850	19,510
	125	14.0	7	326TY	7428	3900	24,192
	100	17.1	8	326TY	12,848	9650	30,240
	84	20.9	8	326TY	12,848	9500	36,000
	68	25.6	8	326TY	12,848	8900	44,471

## 50 HP—CLASS III

## DISCOUNT D-42a

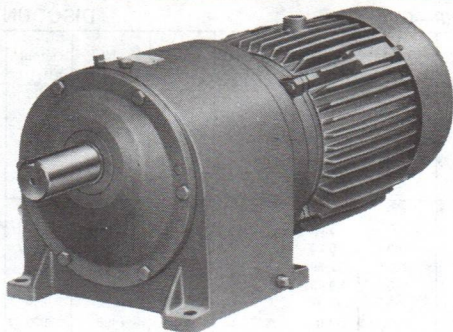
	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	7	326TY	\$ 6835	2652	2159
	1170	1.50	7	326TY	6835	2722	2638
	950	1.84	7	326TY	6835	2825	3249
	780	2.25	8	326TY	11,324	4229	3958
	640	2.76	8	326TY	11,324	4282	4823
	520	3.38	8	326TY	11,324	4290	5937
DOUBLE	420	4.13	7	326TY	7428	3050	7200
	350	5.06	7	326TY	7428	3100	8640
	280	6.20	7	326TY	7428	3450	10,800
	230	7.59	7	326TY	7428	3200	13,148
	190	9.30	7	326TY	7428	3100	15,916
	155	11.4	8	326TY	12,848	8600	19,510
	125	14.0	8	326TY	12,848	8300	24,192
	100	17.1	8	326TY	12,848	7750	30,240
	84	20.9	8	326TY	12,848	7200	36,000

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—60 HP Gearmotors

Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 150/75  
Totally Enclosed Fan Cooled



## 60 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	7	365TY	\$ 7658	3070	2590
	1170	1.50	7	365TY	7658	3150	3166
	950	1.84	7	365TY	7658	3199	3899
	780	2.25	7	365TY	7658	3258	4749
	640	2.76	7	365TY	7658	3298	5788
	520	3.38	7	365TY	7658	3318	7124
DOUBLE	420	4.13	7	365TY	8251	3450	8640
	350	5.06	7	365TY	8251	3600	10,368
	280	6.20	7	365TY	8251	3750	12,960
	230	7.59	7	365TY	8251	3900	15,777
	190	9.30	7	365TY	8251	4000	19,099
	155	11.4	7	365TY	8251	4100	23,412
	125	14.0	7	365TY	8251	4200	29,030
	100	17.1	7	365TY	8251	4200	36,288
	84	20.9	8	365TY	13,671	10,000	43,200
	68	25.6	8	365TY	13,671	10,000	53,365
TPL	56	31.4	8	365TY	14,383	11,800	63,450

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
DIMENSIONS G9-50		INSTALLATION/MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	

## 60 HP—CLASS II

## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	7	365TY	\$ 7658	2830	2590
	1170	1.50	7	365TY	7658	2895	3166
	950	1.84	7	365TY	7658	2950	3899
	780	2.25	7	365TY	7658	2998	4749
	640	2.76	8	365TY	12,147	4314	5788
	520	3.38	8	365TY	12,147	4370	7124
DOUBLE	420	4.13	7	365TY	8251	3150	8640
	350	5.06	7	365TY	8251	3290	10,368
	280	6.20	7	365TY	8251	3400	12,960
	230	7.59	7	365TY	8251	3500	15,777
	190	9.30	7	365TY	8251	3450	19,099
	155	11.4	7	365TY	8251	3450	23,412
	125	14.0	8	365TY	13,671	9250	29,030
	100	17.1	8	365TY	13,671	8800	36,288
	84	20.9	8	365TY	13,671	8500	43,200
	68	25.6	8	365TY	13,671	7500	53,365

## 60 HP—CLASS III

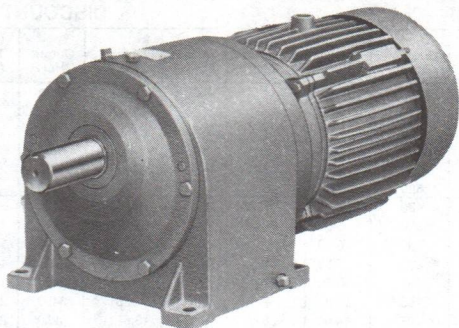
## DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1430	1.22	7	365TY	\$ 7658	2405	2590
	1170	1.50	7	365TY	7658	2493	3166
	950	1.84	8	365TY	12,147	4024	3899
	780	2.25	8	365TY	12,147	4031	4749
	640	2.76	8	365TY	12,147	3980	5788
	520	3.38	8	365TY	12,147	3962	7124
DOUBLE	420	4.13	7	365TY	8251	2850	8640
	350	5.06	7	365TY	8251	2870	10,368
	280	6.20	7	365TY	8251	2950	12,960
	230	7.59	7	365TY	8251	2850	15,777
	190	9.30	8	365TY	13,671	8300	19,099
	155	11.4	8	365TY	13,671	7900	23,412
	125	14.0	8	365TY	13,671	7250	29,030
	100	17.1	8	365TY	13,671	6400	36,288

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG—75 HP Gearmotors



Three Phase—1750 RPM Input  
Continuous Duty—Design B  
60 Hz, 230/460 Volts AC  
Full Load Amps 182.4/91.2  
Totally Enclosed Fan Cooled

## 75 HP—CLASS I (See selection procedure, G9-9) DISCOUNT D-42a

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
SINGLE	1170	1.50	7	365TY	8470	2985	3958
	950	1.84	7	365TY	8470	3045	4874
	780	2.25	7	365TY	8470	3095	5937
	640	2.76	7	365TY	8470	3111	7235
	520	3.38	8	365TY	12,959	4394	8905
	420	4.13	8	365TY	12,959	4800	11,025
	350	5.06	8	365TY	12,959	4350	13,235
DOUBLE	230	7.59	7	365TY	9063	3650	19,722
	190	9.30	7	365TY	9063	3700	23,874
	155	11.4	7	365TY	9063	3700	29,265
	125	14.0	7	365TY	9063	3750	36,288
	100	17.1	8	365TY	14,483	9300	45,360
	84	20.9	8	365TY	14,483	9100	54,000
	68	25.6	8	365TY	14,483	8500	66,706
TPL	56	31.4	8	365TY	15,195	11,650	79,313

### REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-50	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60

**75 HP—CLASS II****DISCOUNT D-42a**

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
<b>SINGLE</b>	1170	1.50	7	365TY	8470	2667	3958
	950	1.84	7	365TY	8470	2720	4874
	780	2.25	8	365TY	12,959	4220	5937
	640	2.76	8	365TY	12,959	4210	7235
	520	3.38	8	365TY	12,959	4210	8905
	420	4.13	8	365TY	12,959	4300	11,025
<b>DOUBLE</b>	230	7.59	7	365TY	9063	3100	19,722
	190	9.30	7	365TY	9063	3000	23,874
	155	11.4	8	365TY	14,483	8450	29,265
	125	14.0	8	365TY	14,483	8300	36,288
	100	17.1	8	365TY	14,483	7400	45,360
	84	20.9	8	365TY	14,483	6800	54,000

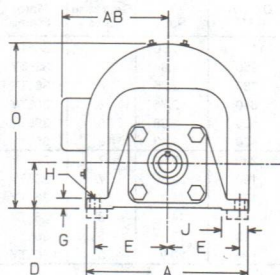
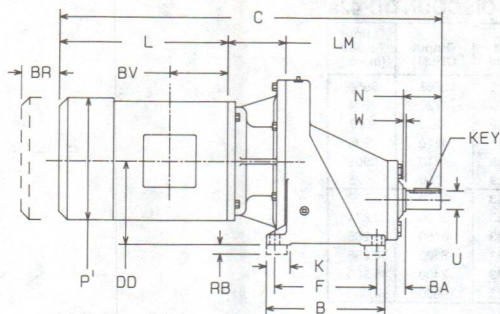
**75 HP—CLASS III****DISCOUNT D-42a**

	Output RPM	Ratio	Gearcase Size	Motor Frame	List Price	Output OHL(1)	Output Torque (in.-lb.)
<b>SING</b>	1170	1.50	8	365TY	12,959	3635	3958
	950	1.84	8	365TY	12,959	3606	4874
	780	2.25	8	365TY	12,959	3750	5937
	640	2.76	8	365TY	12,959	4150	7235
<b>DOUBLE</b>	230	7.59	8	365TY	14,483	7700	19,722
	190	9.30	8	365TY	14,483	7400	23,874
	155	11.4	8	365TY	14,483	6570	29,265
	125	14.0	8	365TY	14,483	6000	36,288

(1) At one shaft diameter from the shaft shoulder. Measure in lbs.



# DODGE APG Dimensions—Sizes 3 & 4



Single Reduction Gearmotor\*

Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	N	O
3	Single	1, 1½	8.25	6.62	20.65	2.51	3.56	5.62	0.63	0.44	1.56	1.38	8.52	2.63	8.50●
		2			21.65								9.52		
		3			23.71								11.58		
		5			24.13								12.00		
		7½			25.63								12.38		
		10			27.25								13.87		
4	Single	2	8.25	7.62	22.37	2.55	3.50	6.50	0.63	0.56	1.75	1.69	9.52	2.63	8.94●
		3			24.43								11.58		
		5			24.85								12.00		
		7½			26.35								12.38		
		10			27.97								13.87		
		15			31.03								16.62		
20	31.03	16.62													

Size	Red.	HP	P <sup>1</sup>	W	AB	BA	BR w/brake	BV	DD	LM	RB†	U		Key	
												Min.	Max.	Square	Length
3	Single	1, 1½	7.28	0.12	4.68■	1.62	5.40	4.29	4.38	2.88	NR	1.124	1.125	0.250	1.75
		2						5.29							
		3						7.35							
		5						7.28							
		7½						4.25							
		10						4.56							
4	Single	2	7.28	0.12	4.68■	1.69	5.40	5.29	4.82	2.88	NR	1.124	1.125	0.250	1.75
		3						7.35							
		5						7.28							
		7½						4.25							
		10						4.56							
		15						4.25							
20	5.31														

\* All dimensions in inches.

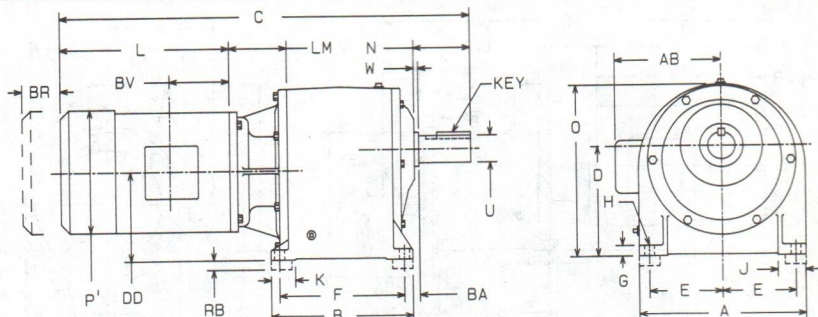
● Height of gearcase only, motor conduit box height may be greater.

† Dimensions represent the height of the riser block that comes standard with the gearmotor. NR indicates that riser block is not required.

■ Conduit box is located on top of motor. Dimension shown is from center line of motor to top of conduit box.

## REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-9	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60



Double, Triple Reduction Gearmotor\*

Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	N	O												
3	Double	1, 1½	8.38	8.00	21.46	5.37	3.56	7.00	0.63	0.44	1.50	1.38	8.52	2.63	8.75●												
		2			22.46								9.52														
		3			24.52								11.58														
		5			24.94								12.00														
		7½			26.45								12.38		9.76												
		10			28.07								13.87		10.39												
	Triple	¼ thru 1½	8.38	8.00	22.15	5.37	3.56	7.00	0.63	0.44	1.50	1.38	8.52	2.63	8.75●												
		2			23.15								9.52														
		3			23.81								9.52														
		5			25.87								11.58														
4	Double	3	8.25	9.00	6.17	3.50	7.88	0.63	0.56	1.75	1.69	11.58	3.39	10.03●													
		5										26.29			12.00												
		7½										27.80			12.38												
		10										29.42			13.87												
		15										29.41		16.62	11.82												
		20										32.48		8.52													
		Triple										½-1½		8.25	9.00	6.17	3.50	7.88	0.63	0.56	1.75	1.69	9.52	3.39	10.03●		
												2											23.56			9.52	
	3	26.62	11.58																								
	Size	Red.	HP	P¹	W	AB	BA	BR w/brake	BV	DD	LM	RB†	U		Key												
												Min.	Max.	Square	Length												
3	Double	1, 1½	7.28	0.12	4.68■	1.07	5.40	4.29	4.39	2.88	NR	1.249	1.250	0.250	1.75												
		2			5.29																						
		3			7.35																						
		5			7.98			7.28																			
		7½			9.25			4.00								5.00											
		10			10.50			8.69								9.43	4.56	4.13	1.25								
	Triple	¼ thru 1½	7.28	0.12	4.68■	1.07	5.40	4.29	4.39	2.88	NR	1.249	1.250	0.250	1.75												
		2			5.29																						
		3			5.29																						
		5			7.35																						
4	Double	7½	9.25	0.13	7.81	0.98	9.62	4.25	4.82	2.88	NR	1.624	1.625	0.375	2.75												
		10			8.69			9.43								4.56	4.13	0.88									
		15			8.69			9.93																			
		20			10.06			10.62								5.31	4.44	2.44									
		Triple			½-1½			7.28								0.13	4.68■	0.98	5.40	4.29	4.82	2.88	NR	1.624	1.625	0.375	2.75
					2												5.29										
		3			7.35																						

\* All dimensions in inches.

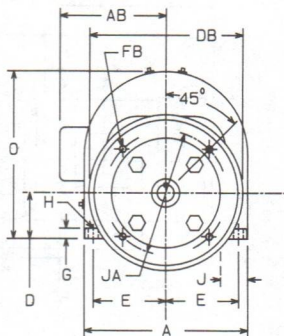
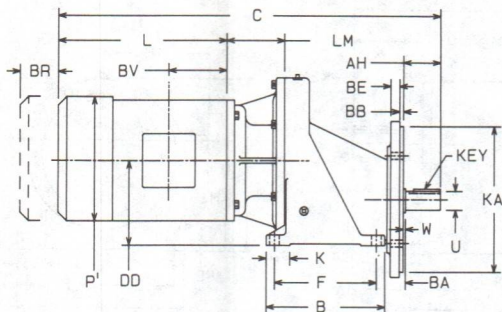
• Height of gearcase only, motor conduit box height may be greater.

† Dimensions represent the height of the riser block that comes standard with the gearmotor. NR indicates that riser block is not required.

■ Conduit box is located on top of motor. Dimension shown is from center line of motor to top of conduit box.



# DODGE APG Dimensions—Sizes 3 & 4



Single Reduction Gearmotor\*  
(Flange Mount)

Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	O	P <sup>1</sup>	W▲	AB	AH	
3	Single	1, 1½	8.25	6.62	20.65	2.51	3.56	5.62	0.63	0.44	1.56	1.38	8.52	8.50●	7.28	0.12	4.68■	2.63	
		2			21.65								9.52						
		3			23.71								11.58						
		5			24.13								12.00		7.98		6.29■		
		7½			25.63								12.38	9.76	9.25		7.81		
		10			27.25								13.87	10.38	10.50		8.69		
4	Single	2	8.25	7.62	22.37	2.55	3.50	6.50	0.63	0.56	1.75	1.69	9.52	8.94	7.28	0.12	4.68■	2.63	
		3			24.43								11.58		7.98		6.29■		
		5			24.85								12.00		7.98		7.81		
		7½			26.35								12.38		10.20		9.25		8.69
		10			27.97								13.87	10.82	10.50		10.06		
		15			31.03								16.62	11.82	13.12				
		20																	
		Size			Red.								HP	BA	BB		BE		BR w/brake
																Min.	Max.	Sq.	Length
3	Single	1, 1½	1.62	0.25	0.62	4.29	5.40	9.00	4.38	½-13 THD	4	7.25	8.50	2.88	—	1.124	1.125	0.250	1.75
		2				5.29								4.00					
		3				7.35								4.13					
		5				7.28													
		7½				9.62								4.25					
		10				9.43								4.56					
4	Single	2	1.69	0.25	0.62	5.29	5.40	9.00	4.82	½-13 THD	4	7.25	8.50	2.88	—	1.124	1.125	0.250	1.75
		3				7.35								4.00					
		5				7.28								4.13					
		7½				9.62								4.25					
		10				9.43								4.56					
		15				9.93													
		20				10.62								5.31					
														4.44					

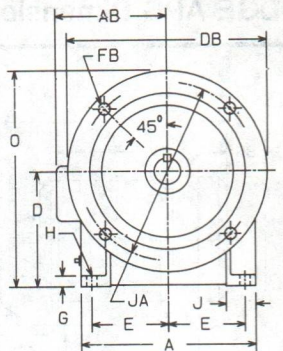
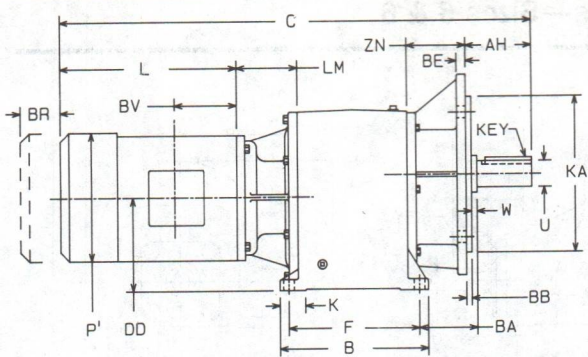
\* All dimensions in inches.

● Height of gearcase or flange only, motor conduit box height may be greater.

▲ Dimensions in parentheses indicate negative values.

■ Conduit box is located on top of motor. Dimension shown is from center line of motor to top of conduit box.

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
SELECTION G9-9		INSTALLATION/MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	



**Double, Triple Reduction Gearmotor\*  
(Flange Mount)**

Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	O	P <sup>1</sup>	W▲	AB	AH		
3	Double	1, 1½	8.38	8.00	23.65	5.37	3.56	7.00	0.63	0.44	1.50	1.38	8.52	10.29●	7.28	(0.25)	4.68■	3.31		
		2			24.65								9.52							
		3			26.71								11.58							
		5			27.13								12.00		7.98		6.29■			
		7½			28.63								12.38	10.29	9.25		7.81			
		10			30.25								13.87	10.39	10.50		8.69			
	T	¼-1½	8.38	8.00	24.34	5.37	3.56	7.00	0.63	0.44	1.50	1.38	8.52	10.29	7.28	(0.25)	4.68	3.31		
		2			25.34								9.52							
		3			25.78								11.58		7.28		4.68■			
		5			27.84								12.00	11.67●	7.98		6.29■			
4	Double	3	8.25	9.00	28.26	6.17	3.50	7.88	0.63	0.56	1.75	1.69	12.38	11.67	9.25	0.06	6.29■	4.00		
		5			29.76								12.00		7.98		7.81			
		7½			29.76								12.38		9.25		7.81			
		10			31.38								13.87		10.50		8.69			
		15			31.38								13.87		10.50		8.69			
		20			34.44								16.62	11.82	13.12		10.06			
	Triple	½-1½	8.25	9.00	25.53	6.17	3.50	7.88	0.63	0.56	1.75	1.69	8.52	11.67●	7.28	0.06	4.68■	4.00		
		2			26.53								9.52							
		3			28.59								11.58							
Size	Red.	HP	BA	BB	BE	BR w/brake	BV	DB	DD	FB	No. of Holes	JA	KA	LM	ZN	U		Key		
																Min.	Max.	Sq.	Length	
3	Double	1, 1½	2.38	0.19	0.50	5.40	4.29	9.84	4.39	0.531	4	8.50	7.13	2.88	2.94	1.374	1.375	0.313	2.38	
		2					5.29													
		3					7.35													
		5					7.28													
		7½					9.62													4.25
		10					9.43							4.56						4.13
	T	¼-1½	2.38	0.19	0.50	5.29	4.29	9.84	4.39	0.531	4	8.50	7.13	2.88	2.94	1.374	1.375	0.313	2.38	
		2				5.29	5.29													
		3				5.40	7.35													
		5				7.28	7.28													
4	Double	3	2.44	0.19	0.50	5.40	7.35	11.00	4.82	0.531	4	10.00	9.00	2.88	2.88	1.624	1.625	0.375	2.75	
		5					7.28													
		7½					9.62													4.25
		10					9.43													4.56
		15					9.93													
		20					10.62													5.31
	Triple	½-1½	2.44	0.19	0.50	5.40	4.29	11.00	4.82	0.531	4	10.00	9.00	2.88	2.88	1.624	1.625	0.375	2.75	
		2				5.29														
		3				7.35														

All dimensions in inches.

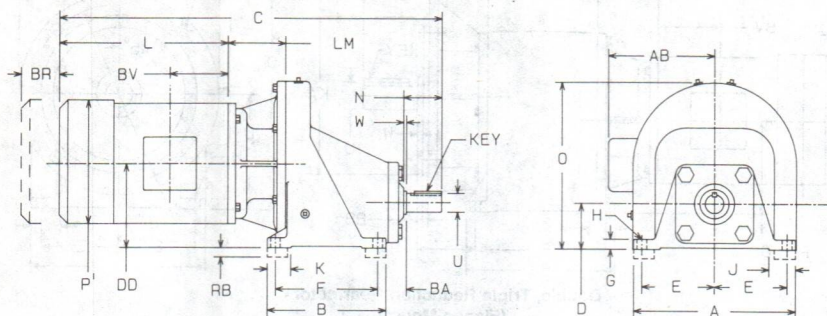
Height of gearcase or flange only, motor conduit box height may be greater.

Dimensions in parentheses indicate negative values.

Conduit box is located on top of motor. Dimension shown is from center line of motor to top of conduit box.



# DODGE APG Dimensions—Sizes 5 & 6



Single Reduction Gearmotor\*

Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	N	O
5	Single	3	12.25	8.69	25.99	3.30	5.38	7.44	0.75	0.72	2.06	1.75	11.58	2.85	12.25*
		5			26.41								12.00		
		7½			27.91								12.38		
		10, 15			29.53								13.87		
		20			32.59								16.62		
6	Single	25, 30	12.25	10.44	34.92	4.21	5.13	8.62	1.00	0.88	2.44	2.56	18.76	3.62	13.87
		7½			29.82								12.38		
		10, 15			31.44								13.87		
		20			34.50								16.62		
		25, 30			36.83								18.76		
6	Single	40, 50	12.25	10.44	39.76	4.21	5.13	8.62	1.00	0.88	2.44	2.56	21.19	3.62	16.29
		60, 75			42.94								23.25		
		7½			29.82								12.38		
		10, 15			31.44								13.87		
		20			34.50								16.62		
6	Single	25, 30			36.83								18.76		
		40, 50			39.76								21.19		
		60, 75			42.94								23.25		
		7½			29.82								12.38		
		10, 15			31.44								13.87		
6	Single	20			34.50								16.62		
		25, 30			36.83								18.76		
		40, 50			39.76								21.19		
		60, 75			42.94								23.25		
		7½			29.82								12.38		

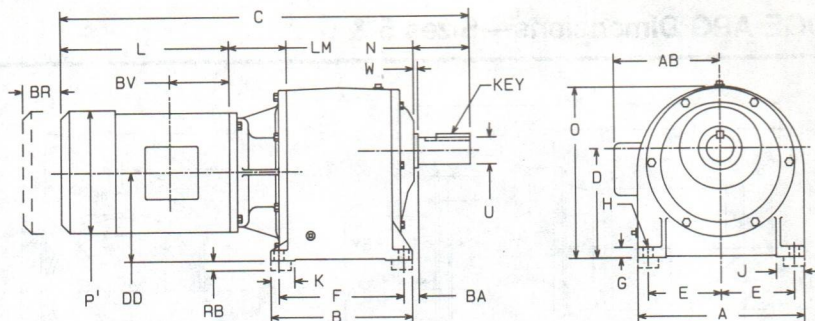
\* All dimensions in inches.

† Height of gearcase only, motor conduit box height may be greater.

‡ Dimensions represent the height of the riser block that comes standard with the gearmotor. NR indicates that riser block is not required.

■ Conduit box is located on top of motor. Dimension shown is from center line of motor to top of conduit box.

REFERENCES			
FEATURES G9-3		NOMENCLATURE G9-7	
SELECTION G9-9		INSTALLATION MAINTENANCE G9-108	
MOUNTING POSITIONS G9-12		WEIGHTS G9-60	

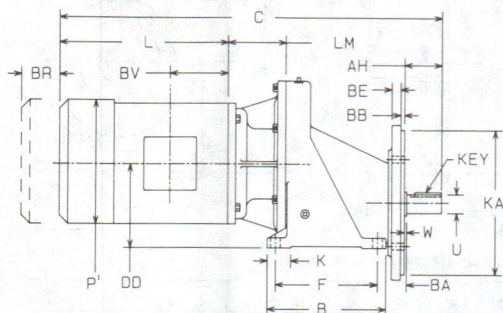


**Double, Triple Reduction Gearmotor\***

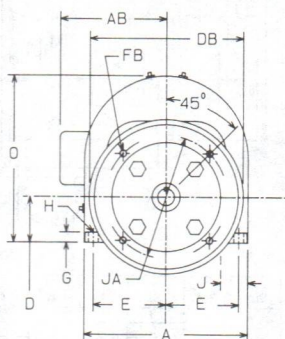
Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	N	O	
5	Double	3	12.25	10.31	27.90	7.74	5.38	9.06	0.74	0.72	2.06	1.75	11.58	4.13	12.29●	
		5			28.32								12.00			
		7½			29.82								12.38		12.29	
		10, 15			31.44								13.87		13.10	
		20			34.50								16.62			
	Triple	25, 30	36.83	18.76	13.85											
		¾-1½	25.71	8.52	4.13	12.29●										
		2	26.71	9.52												
		3	28.77	11.58												
		5	29.19	12.00												
7½	30.70	12.38	12.29													
6	Double	7½	12.00	12.88	32.07	9.85	5.13	11.00	1.00	0.88	2.44	2.56	12.38	4.87	15.66	
		10, 15			33.69								13.87			
		20			36.75								16.62			
		25, 30			39.08								18.76		16.29	
		40, 50			42.01								21.19			
	Triple	60, 75	45.19	23.25	17.73											
		1½	28.11	8.52	4.87	15.66●										
		2	29.11	9.52												
		3	31.17	11.58												
		5	31.59	12.00												
7½	33.09	12.38	15.66													
10																
15	34.71		13.87													
Size	Red.	HP	P¹	W	AB	BA	BR w/brake	BV	DD	LM	RB†	U		Key		
												Min.	Max.	Square	Length	
5	Double	3	7.28	0.15	4.68■	1.08	5.40	7.35	6.10	2.88	NR	1.999	2.000	0.500	3.50	
		5	7.98		7.28			4.00								
		7½	9.25		7.81			4.25		4.13						
		10, 15	10.50		8.69			4.56		4.44						1.25
		20	13.12		10.06			5.31		4.63						2.00
	Triple	25, 30	14.62	12.06	12.12	6.13	4.29	6.10	2.88	NR	1.999	2.000	0.500	3.50		
		¾-1½				5.29										
		2	7.28	4.68■	5.40	7.35	7.28									
		3		6.29■		9.62	4.25								4.00	
		7½	9.25	7.81	9.62	4.25	4.00									
6	Double	7½	9.25	0.12	7.81	1.00	5.40	9.62	7.60	4.00	NR	2.374	2.375	0.625	4.00	
		10			9.43			4.13								
		15	10.50		8.69			4.56		4.63						0.41
		20	13.12		10.06			5.31		5.13						1.31
		25, 30	14.62		12.06			6.13		6.25						2.75
	Triple	40, 50	16.62	14.12	15.44	7.26	4.29	7.60	2.88	NR	2.374	2.375	0.625	4.00		
		60, 75	19.50	17.94	15.82	7.63	4.44									
		1½				4.29										
		2	7.28	4.68■	5.40	5.29	4.00									
		3		6.29■		7.35										
5	Double	5	7.98	0.15	6.29■	1.08	5.40	7.28	6.10	2.88	NR	1.999	2.000	0.500	3.50	
		7½	9.25		7.81			9.62		4.25						4.00
		10, 15	10.50		8.69			4.56		4.44						1.25
		20	13.12		10.06			5.31		4.63						2.00
		25, 30	14.62		12.06			12.12		6.13						4.29
	Triple	40, 50	16.62	14.12	15.44	7.26	4.29	7.60	2.88	NR	2.374	2.375	0.625	4.00		
		60, 75	19.50	17.94	15.82	7.63	4.44									
		1½				4.29										
		2	7.28	4.68■	5.40	5.29	4.00									
		3		6.29■		7.35										
6	Double	5	7.98	0.12	6.29■	1.00	5.40	7.28	7.60	2.88	NR	2.374	2.375	0.625	4.00	
		7½	9.25		7.81			9.62		4.25						4.00
		10			9.43			4.13								
		15	10.50		8.69			4.56		4.44						1.25
		20	13.12		10.06			5.31		4.63						2.00
	Triple	25, 30	14.62	12.06	12.12	6.13	4.29	7.60	2.88	NR	2.374	2.375	0.625	4.00		
		40, 50	16.62	14.12	15.44	7.26	4.29									
		60, 75	19.50	17.94	15.82	7.63	4.44									
		1½				4.29										
		2	7.28	4.68■	5.40	5.29	4.00									



# DODGE APG Dimensions—Sizes 5 & 6



Single Reduction Gearmotor\*  
(Flange Mount)



Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	O	P'	W▲	AB	AH
5	Single	3	12.25	8.69	25.99	3.30	5.38	7.44	0.75	0.72	2.06	1.75	11.58	12.25●	7.28	0.06	4.68■	2.77
		5			26.41								12.00	7.98	6.29■			
		7½			27.91								12.38	9.25	7.81			
		10			29.53								13.87	12.25	10.50		8.69	
		15			32.59								16.62	13.12	13.12		10.06	
		20			34.92								18.76	13.87	14.62		12.06	
6	Single	7½	12.25	10.44	29.82	4.21	5.13	8.62	1.00	0.88	2.44	2.56	12.38		9.25	0.00	7.81	3.50
		10, 15			31.44								13.87	13.75	10.50		8.69	
		20			34.50								16.62	14.60	13.12		10.06	
		25, 30			36.83								18.76	15.35	14.62		12.06	
		40, 50			39.76								21.19	16.29	16.62		14.12	
		60, 75			42.94								23.25	17.73	19.50		17.94	

Size	Red.	HP	BA	BB	BE	BR w brake	BV	DB	DD	FB	No. of Holes	JA	KA	LM	ZN	U		Key	
																Min.	Max.	Sq.	Length
5	Single	3	1.97	0.25	0.94	5.40	7.35	11.25	6.10	½-13 THD	4	9.00	10.50	2.88	—	1.374	1.375	0.313	2.00
		5				9.62	4.25							4.00					
		7½				9.43	4.56							4.13					
		10				9.93								4.13					
		15				10.62	5.31							4.44					
		25, 30				12.12	6.13							4.63					
6	Single	7½	2.31	0.25	0.94	9.62	4.25	14.00	7.60	¾-11 THD	4	11.00	12.50	4.00	—	1.749	1.750	0.375	2.75
		10				9.43	4.56							4.13					
		15				9.43	4.56							4.13					
		20				10.62	5.31							4.44					
		25, 30				12.12	6.13							4.63					
		40, 50				15.44	7.26							5.13					
60, 75	15.82	7.63			6.25														

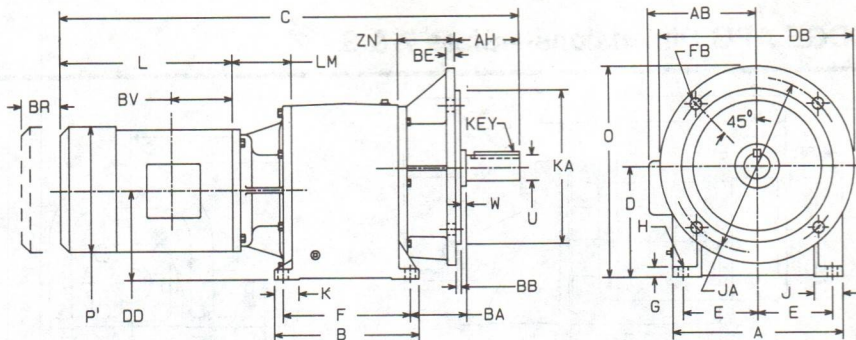
\* All dimensions in inches.

● Height of gearcase or flange only, motor conduit box height may be greater.

▲ Dimensions in parentheses indicate negative values.

■ Conduit box is located on top of motor, dimension shown is from center line of motor to top of conduit box.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-9	INSTALLATION MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60



**Double, Triple Reduction Gearmotor\* (Flanged Mount)**

Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	O	P'	W▲	AB	AH	
5	Double	3	12.25	10.31	30.88	7.74	5.38	9.06	0.74	0.72	2.06	1.75	11.58	14.74●	7.28	(0.19)	4.68■	4.62	
		5			31.30								12.00		7.98		6.29■		
		7½			32.81								12.38		9.25		7.81		
		10			34.42								13.87		10.50		8.69		
		15			37.49								16.62		13.12		10.06		
		20			37.49								18.76		14.62		12.06		
		25, 30			39.81								8.52		7.28		4.68■		
	Triple	¾-1½	12.25	10.31	28.70	7.74	5.38	9.06	0.74	0.72	2.06	1.75	9.52	14.74●	7.98	(0.19)	6.29■	4.62	
		2			29.70								12.00		9.25		7.81		
		3			31.76								12.38		10.50		8.69		
		5			33.68								13.87		13.12		10.06		
		7½			35.76								18.76		14.62		12.06		
		10			37.38								21.19		16.62		14.12		
		15			37.37								23.25		19.50		17.94		
6	Double	20	12.00	12.88	40.44	9.85	5.13	11.00	1.00	0.88	2.44	2.56	16.62	18.85	13.12	0.07	10.06	5.88	
		25, 30			42.76								18.76		14.62		12.06		
		40, 50			45.69								21.19		16.62		14.12		
		60, 75			48.88								23.25		19.50		17.94		
		1½			31.79								8.52		7.28		4.68■		
		2			32.79								9.52		7.98		6.29■		
		3			34.85								11.58		9.25		7.81		
	Triple	5	12.00	12.88	35.27	9.85	5.13	11.00	1.00	0.88	2.44	2.56	12.00	18.85●	7.98	0.07	6.29■	5.88	
		7½			36.78								12.38		9.25		7.81		
		10			38.40								13.87		10.50		8.69		
		15			38.39														
Size	Red.	HP	BA	BB	BE	BR w/brake	BV	DB	DD	FB	No. of Holes	JA	KA	LM	ZN	U		Key	
5	Double	3	3.43	0.19	0.63	5.40	7.35	14.00	6.10	0.812	4	12.50	11.00	2.88	4.12	1.874	1.875	0.500	3.50
		5				5.40	7.28							4.00					
		7½				9.62	4.25							4.13					
		10				9.43	4.56							4.44					
		15				10.62	5.31							4.63					
		20				12.12	6.13							4.63					
		25, 30				4.29	5.29							2.88					
	Triple	¾-1½	3.43	0.19	0.63	5.40	7.35	14.00	6.10	0.812	4	12.50	11.00	2.88	4.12	1.874	1.875	0.500	3.50
		2				5.40	7.28							4.00					
		3				9.62	4.25							4.13					
		5				9.43	4.56							4.44					
		7½				10.62	5.31							4.63					
		10				12.12	6.13							4.63					
		15				15.44	7.26							5.13					
6	Double	20	3.79	0.19	0.75	15.82	7.63	18.00	7.60	0.812	4	16.00	14.00	4.44	4.56	2.374	2.375	0.625	4.00
		25, 30				12.12	6.13							4.63					
		40, 50				15.44	7.26							5.13					
		60, 75				15.82	7.63							6.25					
		1½				4.29	5.29							2.88					
		2				5.40	7.35							4.00					
		3				9.62	4.25							4.13					
	Triple	5	3.79	0.19	0.75	9.43	4.56	18.00	7.60	0.812	4	16.00	14.00	4.44	4.56	2.374	2.375	0.625	4.00
		7½				10.62	5.31							4.63					
		10				12.12	6.13							4.63					
		15				15.44	7.26							5.13					
		20				15.82	7.63							6.25					
		25, 30				4.29	5.29							2.88					
		40, 50				5.40	7.35							4.00					

\* All dimensions in inches.

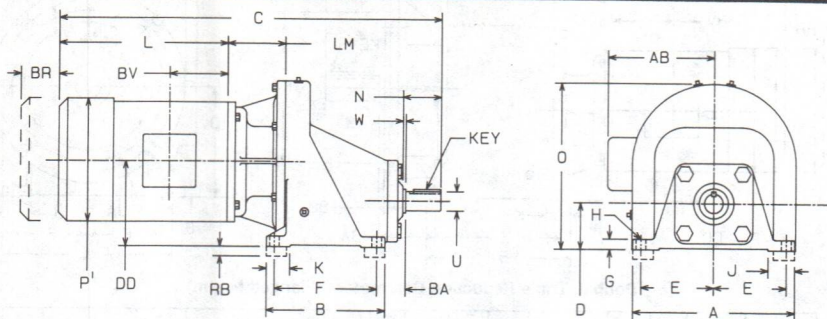
● Height of gearcase or flange only, motor conduit box height may be greater.

▲ Dimensions in parentheses indicate negative values.

■ Conduit box is located on top of motor, dimension shown is from center line of motor to top of conduit box.



# DODGE APG Dimensions—Sizes 7 & 8



Single Reduction Gearmotor\*

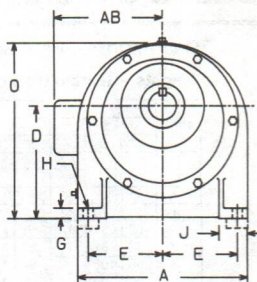
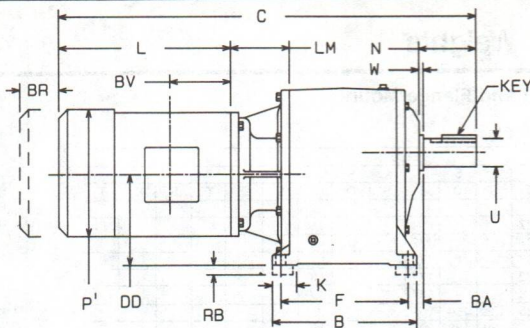
Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	N	O
7	Single	15	18.25	12.50	34.06	6.62	7.81	10.12	1.38	1.31	3.38	3.00	13.87	4.50	20.06
		20			37.12								16.62		
		25, 30			39.45								18.76		
		40, 50			42.38								21.19		
		60, 75			45.56								23.25		
		100			49.25								25.69		
8	Single	125	18.25	14.25	54.06	6.15	7.81	11.88	1.75	1.31	3.50	3.75	30.00	5.62	21.07
		25, 30			41.92								18.76		
		40, 50			44.85								21.19		
		60, 75			48.03								23.25		
		100			51.72								25.69		
		125-200			56.53								30.00		

Size	Red.	HP	P <sup>1</sup>	W	AB	BA	BR w/brake	BV	DD	LM	RB†	U		Key	
												Min.	Max.	Square	Length
7	Single	15	10.50	0.16	8.69	3.00	9.93	4.56	10.94	4.13	NR	2.249	2.250	0.500	3.50
		20	13.12		10.06		10.62	5.31		4.44					
		25, 30	14.62		12.06		12.12	6.13		4.63					
		40, 50	16.62		14.12		15.44	7.26		5.13					
		60, 75	19.50		17.94		15.82	7.63		6.25					
		100	22.50		19.31		16.62	8.13		7.50					
8	Single	125	25.25	0.16	23.38	3.00	15.88	9.63	11.42	8.00	1.75	2.749	2.750	0.625	5.00
		25, 30	14.62		12.06		12.12	6.13		4.63					
		40, 50	16.62		14.12		15.44	7.26		5.13					
		60, 75	19.50		17.94		15.82	7.63		6.25					
		100	22.50		19.31		16.62	8.13		7.50	0.62				
		125	25.25		23.38		15.88	9.63		8.00	1.75				

\* All dimensions in inches.

† Dimensions represent the height of the riser block that comes standard with the gearmotor. NR indicates that riser block is not required.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-9	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-12	WEIGHTS G9-60



**Double, Triple Reduction Gearmotor\***

Size	Red.	HP	A	B	C	D	E	F	G	H	J	K	L	N	O
7	Double	15	18.25	16.12	36.95	13.92	7.81	13.75	1.36	1.31	3.31	3.44	13.87	5.94	21.65
		20			40.01								16.62		
		25, 30			42.34								18.76		
		40, 50			45.27								21.19		
		60, 75			48.46								23.25		
		100			52.15								25.69		
	Triple	125			56.96								30.00		22.26
		7 1/2			36.54								12.38		23.33
		10, 15			38.15								13.87		21.65
		20			41.22								16.62		
8	Double	25, 30	18.25	18.62	43.54	15.09	7.81	16.16	1.75	1.31	3.44	3.75	18.76	7.48	24.36
		40, 50			46.90								21.19		
		60, 75			49.83								23.25		
		100			53.02								25.69		
		125-200			56.71								30.00		
		7 1/2			61.52								12.38		
	Triple	10, 15			41.35								13.87		24.36
		20			42.97								16.62		
		25, 30			46.03								18.76		
		40, 50			48.36								21.19		
7	Double	60, 75	0.19	0.94	51.29	1.61	15.82	7.63	11.30	1.75	NR	3.624	3.625	0.875	6.00
		100			54.47										
		125			56.71										
		150, 200			58.88										
		7 1/2			61.52										
		10			63.69										
	Triple	15			65.86										
		20			68.03										
		25, 30			70.20										
		40, 50			72.37										
8	Double	60, 75	0.23	1.61	74.54	1.61	15.82	7.63	11.30	1.75	NR	3.624	3.625	0.875	6.00
		100			76.71										
		125			78.88										
		150, 200			81.05										
		7 1/2			83.22										
		10			85.39										
	Triple	15			87.56										
		20			89.73										
		25, 30			91.90										
		40, 50			94.07										

\* All dimensions in inches.

† Dimensions represent the height of the riser block that comes standard with the gearmotor.

NR indicates that riser block is not required.



# DODGE APG Gearmotor Weights

## Gearmotors—Foot Mount and Flange Mount

### Weights—Gearmotors Foot Mount

HP	SIZE																	
	3			4			5			6			7			8		
	S	D	T	S	D	T	S	D	T	S	D	T	S	D	T	S	D	T
1/3			82															
1/2			82			97												
3/4			82			97			172									
1	57	76	82			97			172									
1 1/2	62	81	87			102			177			240						
2	72	91	97	80	103	112			187			250						
3	86	105		94	117	126	135	184	201			264						
5	90	109		98	121		139	188	205			268						
7 1/2	161	179		168	192		207	256	273	239	314	336			578			838
10	202	221		210	233		244	293		276	351	373			619			879
15				243	266		277	326		309	384	406	461	600	652			912
20				325	349		360	409		392	467		539	678	730			990
25							476	524		508	582		655	794	846	735	1039	1106
30							476	524		508	582		655	794	846	735	1039	1106
40										646	721		796	935		875	1180	1247
50										646	721		796	935		875	1180	1247
60										895	969		1046	1184		1125	1429	1497
75										895	969		1046	1184		1125	1429	1497

### Weights—Gearmotors Flange Mount

HP	SIZE											
	3			4			5			6		
	S	D	T	S	D	T	S	D	T	S	D	T
1/3			93									
1/2			93			114						
3/4			93			114			194			
1	66	87	93			114			194			
1 1/2	71	92	98			119			199			287
2	81	102	108	88	120	129			209			297
3	95	116		102	134	143	150	206	223			311
5	99	120		106	138		154	210	227			315
7 1/2	169	190		177	209		222	278	295	265	361	383
10	211	232		219	250		259	315		302	398	420
15				252	283		292	348		335	431	453
20				334	366		375	431		418	514	
25							491	546		534	629	
30							491	546		534	629	
40										672	768	
50										672	768	
60										921	1016	
75										921	1016	

#### REFERENCES

DIMENSIONS G9-50 SELECTION G9-9

# DODGE APG Reducers

APG reducers are available in both C-Face and Separate Shaft-in construction in ratios from 1.22 to 129.7:1. The pages that follow provide selection and sizing information.

Additional information regarding:

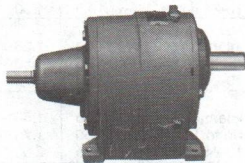
- C-Face Motors
- Backstops
- Clutch Brake Modules
- Exact Ratios
- Thermal HP Limits
- Installation and Maintenance
- Overhung Load Location Factors

can be found starting on page G9-104.

**To Order Product**, use nomenclature on G9-7, or use Model Number Index beginning on G9-113. Most ratings are available on a short delivery cycle.

For details contact customer service:

- in Greenville, S.C. (803) 297-4800
- in Columbus, Ind. (812) 376-1421



## DODGE APG Reducer Selection Procedure

**Step 1:** For applications with one start/hr. or less and non-pulsating load (starting factor = 1.0) skip Steps 2 and 3 and proceed to Step 4. For applications with more than one start/hr. proceed to Step 2. For pulsating loads contact Application Engineering at **812-376-1100**.

**Step 2:** Determine inertia ratio (application assistance available at 812-376-1100).

$$\text{Inertia Ratio} = \frac{\text{Driven Inertia}}{\text{Driving Inertia}}$$

Where: **Driving Inertia** is defined as the motor inertia.

This value must be provided by the motor manufacturer. On APG Gearmotors, driving inertia data is available from your DODGE Sales Engineer or Application Engineering.

**Driven Inertia** is defined as the "load inertia" referred to the motor speed. The "load inertia" must be provided by the driven machine manufacturer. For assistance contact application engineering or see formulas below.

$$\text{Rotating Driven Inertia} = \text{Load Inertia} \times \left( \frac{\text{Load RPM}}{\text{Motor RPM}} \right)^2$$

$$\text{Linear Driven Inertia} = W \times \left( \frac{V}{6.28 N} \right)^2$$

Where: W = Weight (Lbs.)

V = Linear Velocity (Ft/Min.)

N = Motor RPM

If these values are unobtainable proceed to Step 3. If application assistance is required contact Application Engineering at 812-376-1100.

**Note: Gearbox Inertias**, not addressed above, are typically negligible. If required, inertia values for the APG unit may be obtained from your DODGE Sales Engineer or Application Engineering.

**Step 3:** With inertia ratio determined, use Chart 1 to select starting factor.

Chart 1: Starting Factors

Starts HR	Inertia Ratios				Unknown Inertia Ratio
	0.0-0.5	>0.5-1.0	>1.0-2.0	>2.0-4.0	
1	1.00	1.00	1.00	1.00	1.00
2	1.00	1.00	1.00	1.15	1.15
5	1.00	1.00	1.13	1.33	1.33
10	1.00	1.01	1.21	1.45	1.45
15	1.00	1.03	1.26	1.51	1.51
20	1.00	1.05	1.29	1.56	1.56
25	1.00	1.05	1.31	1.59	1.59

If starting frequency is greater than 25 starts/hr., contact application engineering at 812-376-1100.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DODGE APG Reducer Selection Procedure

**Step 4:** Determine "Driven Machine Factor" from Chart 2 below.

**Chart 2: Driven Machine Factor**

Prime Mover	Duration of Service Per Day	Driven Machine Load Classification		
		Uniform	Medium Shock	Heavy Shock
Electric Motor	Intermittent 2 hrs. Up to 10 hours 10-24 hours	0.90	1.00	1.50
		1.00	1.25	1.75
		1.25	1.50	2.00
Multi-cylinder Internal Combustion Engine	Intermittent 2 hrs. Up to 10 hours 10-24 hours	1.00	1.25	1.75
		1.25	1.50	2.00
		1.50	1.75	2.25
Single Cylinder Internal Combustion Engine	Intermittent 2 hrs. Up to 10 hours 10-24 hours	1.25	1.50	2.00
		1.50	1.75	2.25
		1.75	2.00	2.50

**Step 5:** Determine service factor.

Service Factor = Starting Factor × Driven Machine Factor

**Step 6:** Using the service factor obtained in Step 5, calculate the equivalent HP by multiplying the demand HP to be transmitted by the service factor.

$$\text{Equivalent HP} = \frac{\text{Demand HP} \times \text{Service Factor}}{\text{Nominal Efficiency}}$$

Where: Single Reduction Nominal Eff. = 0.98  
Double Reduction Nominal Eff. = 0.96  
Triple Reduction Nominal Eff. = 0.94

**Step 7:** From rating tables pages G9-69 through G9-86, make reducer selection based on input RPM, ratio, and equivalent HP.

**Step 8:** Check overhung loads by using the following formula:

$$\text{OHL} = \frac{126,000 \times \text{HP} \times \text{Fc} \times \text{Lf}}{\text{PD} \times \text{RPM}}$$

Where: OHL = Overhung Load (lbs.)

HP = Demand Horsepower

Fc = Load Connection Factor

Chain Drive: Fc = 1.00

Synchronous Belt Drive Fc = 1.10

Spur or Helical Gear Fc = 1.25

V-Belt Drive Fc = 1.50

Flat Belt Drive Fc = 2.50

Lf = Load Location Factor. For Lf of low speed shaft see page G9-106

PD = Pitch Diameter (inches)

RPM = Revolutions per Minute (output)

To minimize overhung load and increase bearing life, load centerline should be located as close to the reducer seal as possible. For applications where OHL exceeds cataloged values contact Application Engineering at 812-376-1100 or use the reducer selection tables to select the next largest size gearcase.

## Reducer Selection Example:

The customer is designing a new automatic storage and retrieval system on which they propose to use a parallel reducer to drive the elevate function.

Application information provided is:

Customer Requested 10 HP at 37 RPM Output

Output HP Required = 8.4 HP

Carriage Weight (Dead Load) = 1000 lbs.

Maximum Material Weight = 1400 lbs.

Travel Velocity = 2 ft/sec

Drum Diameter = 12 inches

## Duty Cycle:

Start, raise carriage 10 ft. in 5 seconds, brake stop, rest 10 seconds, start, lower carriage 10 ft. in 5 seconds, brake stop, rest 5 minutes — repeat cycle for 16 hours per day.

Select and recommend a DODGE APG Reducer for this application.

1. Determine number of starts/hour:

$$\text{Starts/hr.} = \frac{2 \text{ Starts}}{(5 + 10 + 5 + 300) \text{ sec.}} \times \frac{3600 \text{ sec.}}{\text{hr.}} \\ = 22.5 \text{ Starts/hr.}$$

2. Determine inertia ratio =  $\frac{\text{Driven Inertia}}{\text{Driving Inertia}}$

A. Driving inertia is motor rotor inertia  
10 HP 1750 RPM motor inertia = 0.77 lb. ft<sup>2</sup>  
(Provided by motor manufacturer.)

B. Driven inertia is load inertia referred to the motor shaft, which in this case is linear inertia.

$$\text{Linear driven inertia} = W \left( \frac{V}{6.28 N} \right)^2 \\ = 2400 \left( \frac{2 \times 60}{6.28 \times 1750} \right)^2 \\ = 0.286 \text{ lb.-ft.}^2$$

C. Inertia ratio =  $\frac{0.286}{0.77} = 0.37$

3. Determine "starting factor" (Ref. Chart 1)

For 22.5 starts/hr. and 0.37 inertia ratio starting factor = 1.0

4. Determine "driven machine factor" (Ref. Chart 2)

Assume uniform load at 16 hrs./day  
driven machine factor = 1.25

5. Calculate service factor

$$\text{Service factor} = \text{starting factor} \times \text{driven machine factor} \\ = 1.0 \times 1.25 \\ = 1.25$$

6. Calculate Design HP (DHP). Service Factor  $\times$  Motor HP = required gearbox capacity (DHP).

$$10 \times 1.25 = 12.5 \text{ DHP}$$

7. From Reducer Ratings table 5, a size 7 is required.

215 - TM7A1 - 47.1

List price = \$4953—(G9-112)

### Low Speed Shaft OHL Example

The customer in the example above has determined the need for a chain drive at the reducer output. A 15-tooth single strand 160 chain sprocket with a 9.62" P.D. is mounted on the reducer low speed shaft with the load centered 1.5" from the reducer seal. Calculate using the OHL formula:

$$\text{OHL} = \frac{126,000 \times 8.4 \times 1.0 \times .644}{9.62 \times 37}$$

$$\text{OHL} = 1915 \text{ lbs.}$$

Referring back to the reducer selection table, note that the OHL capacity for a size 7 at 37 rpm is 6800 lbs. and is satisfactory for this selection.

**ALTERNATE SOLUTION** (to be used when actual output HP required is known)

For potential downsizing, apply the service factor to the actual output HP required and select gearcase size from the Reducer Ratings tables (based on maximum output HP).

$$\text{HP output required} = \text{HP actual} \times \text{SF} \\ = 8.4 \times 1.25 \\ = 10.5 \text{ HP out}$$

On Reducer Ratings tables, see maximum output HP. A size 6 gearcase may be used. Therefore, the unit would be

215 - TM6A1 - 47.1

List price = \$3257—(G9-112)

### Low Speed Shaft OHL Example

Same as above except:

$$\text{OHL} = \frac{126,000 \times 8.4 \times 1.0 \times .733}{9.62 \times 37}$$

$$\text{OHL} = 2180 \text{ lbs.}$$

Referring back to the reducer selection table, note that the OHL capacity for a size 6 at 37 rpm is 5100 lbs. and is satisfactory for this selection.

**Note:** Nameplate service factor is based on gearcase input HP capability.

REFERENCES			
FEATURES	G9-3	NOMENCLATURE	G9-7
DIMENSIONS	G9-88, G9-102	PRICING	G9-112
INSTALLATION/MAINTENANCE	G9-108	BACKSTOPS	G9-109
MOUNTING POSITIONS	G9-66	WEIGHTS	G9-87



# Easy Selection Table for DODGE APG C-Face Reducers

This Easy Selection Table is for specific input horsepower at 1750 RPM when output RPM or ratios are known. Trace across from Output RPM/Ratio columns to Input HP requirements. Below, you will find Reducer (Gearcase) Size and page number for more detailed information. Above, note that Standard NEMA C-face frame sizes are indicated.

RED.	RPM Out	Ratio	Frame HP In	56C 1/4	56C 1/3	56C 1/2	56C 3/4	56C 1	140TC 1 1/2	140TC 2	180TC 3	180TC 5	210TC 7 1/2	210TC 10	250TC 15
SINGLE	1430	1.22	Size	3	3	3	3	3	3	3	3	3	3	4	4
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-72	G9-72
	1170	1.50	Size	3	3	3	3	3	3	3	3	3	3	4	5
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-72	G9-75
	950	1.84	Size	3	3	3	3	3	3	3	3	3	4	4	5
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-72	G9-72	G9-75
	780	2.25	Size	3	3	3	3	3	3	3	3	3	4	5	5
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-72	G9-75	G9-75
	640	2.76	Size	3	3	3	3	3	3	3	3	4	4	5	5
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-72	G9-72	G9-75	G9-75
	520	3.38	Size	3	3	3	3	3	3	3	3	4	5	5	6
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-72	G9-75	G9-75	G9-78
DOUBLE	420	4.13	Size	3	3	3	3	3	3	3	3	3	4	4	4
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-70	G9-70	G9-70	G9-73	G9-73
	350	5.06	Size	3	3	3	3	3	3	3	3	3	3	4	5
			Page	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-69	G9-70	G9-70	G9-70	G9-73	G9-76
	280	6.20	Size	3	3	3	3	3	3	3	3	3	3	4	5
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-76
	230	7.59	Size	3	3	3	3	3	3	3	3	3	4	4	5
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-73	G9-76
	190	9.30	Size	3	3	3	3	3	3	3	3	3	4	4	5
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-73	G9-76
	150	11.4	Size	3	3	3	3	3	3	3	3	3	4	5	5
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-76	G9-76
TRIPLE	125	14.0	Size	3	3	3	3	3	3	3	3	4	4	5	5
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-73	G9-76	G9-76	G9-79
	100	17.1	Size	3	3	3	3	3	3	3	3	4	5	5	6
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-76	G9-76	G9-79	G9-79
	84	20.9	Size	3	3	3	3	3	3	3	4	4	5	5	6
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-73	G9-76	G9-76	G9-79	G9-79
	68	25.6	Size	3	3	3	3	3	3	3	4	5	5	6	6
			Page	G9-70	G9-70	G9-70	G9-70	G9-70	G9-73	G9-73	G9-76	G9-76	G9-79	G9-79	G9-79
	56	31.4	Size	3	3	3	3	3	3	4	4	5	6	6	7
			Page	G9-71	G9-71	G9-71	G9-71	G9-71	G9-74	G9-74	G9-77	G9-80	G9-80	G9-83	G9-83
	45	38.4	Size	3	3	3	3	3	3	4	5	5	6	6	7
			Page	G9-71	G9-71	G9-71	G9-71	G9-71	G9-74	G9-77	G9-77	G9-80	G9-80	G9-83	G9-83
	37	47.1	Size	3	3	3	3	3	4	4	5	6	6	7	7
			Page	G9-71	G9-71	G9-71	G9-71	G9-71	G9-74	G9-77	G9-77	G9-80	G9-80	G9-83	G9-83
	30	57.7	Size	3	3	3	3	3	4	4	5	6	6	7	7
			Page	G9-71	G9-71	G9-71	G9-71	G9-71	G9-74	G9-77	G9-77	G9-80	G9-80	G9-83	G9-83
	25	70.6	Size	3	3	3	3	4	4	5	5	6	7	7	8
			Page	G9-71	G9-71	G9-71	G9-71	G9-74	G9-77	G9-77	G9-80	G9-80	G9-83	G9-83	G9-86
	20	86.5	Size	3	3	3	3	4	5	5	6	6	7	7	8
			Page	G9-71	G9-71	G9-71	G9-71	G9-77	G9-77	G9-77	G9-80	G9-80	G9-83	G9-83	G9-86
	16.5	105.9	Size	3	3	3	4	4	5	5	6	7	7	8	8
			Page	G9-71	G9-71	G9-71	G9-74	G9-74	G9-77	G9-77	G9-80	G9-83	G9-83	G9-86	G9-86
	13.5	129.7	Size	3	3	3	4	5	5	6	6	7	7	8	
			Page	G9-71	G9-71	G9-71	G9-74	G9-77	G9-77	G9-80	G9-80	G9-83	G9-83	G9-86	

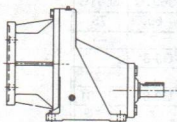
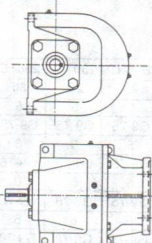
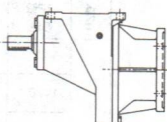
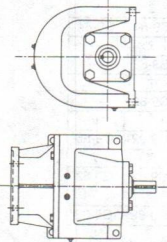
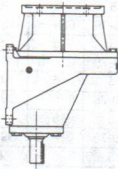
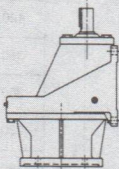
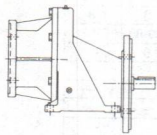
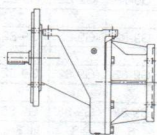
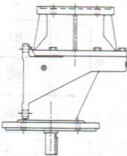
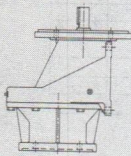
RED.	RPM Out	Ratio	Frame	250TC	280TC	280TC	320TC	320TC	360TC	360TC
			HP In	20	25	30	40	50	60	75
SINGLE	1430	1.22	Size	5	5	6	6	7	7	—
			Page	G9-75	G9-75	G9-78	G9-78	G9-81	G9-81	—
			Size	5	5	6	6	7	7	7
	1170	1.50	Page	G9-75	G9-75	G9-78	G9-78	G9-81	G9-81	G9-81
			Size	5	6	6	7	7	7	7
			Page	G9-75	G9-78	G9-78	G9-81	G9-81	G9-81	G9-81
	950	1.84	Size	6	6	6	7	7	8	8
			Page	G9-78	G9-78	G9-78	G9-81	G9-81	G9-81	G9-81
			Size	6	6	6	7	7	8	8
	780	2.25	Page	G9-78	G9-78	G9-78	G9-81	G9-81	G9-81	G9-84
			Size	6	6	7	7	7	8	8
			Page	G9-78	G9-78	G9-81	G9-81	G9-81	G9-84	G9-84
DOUBLE	420	4.13	Size	5	5	6	6	7	7	—
			Page	G9-76	G9-76	G9-79	G9-79	G9-82	G9-82	—
			Size	5	5	6	6	7	7	—
	350	5.06	Page	G9-76	G9-76	G9-79	G9-79	G9-82	G9-82	—
			Size	5	5	6	6	7	7	8
			Page	G9-76	G9-76	G9-79	G9-79	G9-82	G9-82	G9-85
	280	6.20	Size	5	5	6	6	7	7	7
			Page	G9-76	G9-76	G9-79	G9-79	G9-82	G9-82	G9-82
			Size	5	5	6	6	7	7	7
	230	7.59	Page	G9-76	G9-76	G9-79	G9-79	G9-82	G9-82	G9-82
			Size	5	6	6	7	7	7	7
			Page	G9-76	G9-79	G9-79	G9-82	G9-82	G9-82	G9-82
	190	9.30	Size	6	6	6	7	7	7	8
			Page	G9-79	G9-79	G9-79	G9-82	G9-82	G9-82	G9-85
			Size	6	6	7	7	7	8	8
	150	11.4	Page	G9-79	G9-79	G9-82	G9-82	G9-85	G9-85	G9-85
			Size	6	6	7	7	8	8	8
			Page	G9-79	G9-79	G9-82	G9-82	G9-85	G9-85	G9-85
	125	14.0	Size	6	7	7	7	8	8	8
			Page	G9-79	G9-82	G9-82	G9-82	G9-85	G9-85	G9-85
			Size	6	7	7	7	8	8	8
	100	17.1	Page	G9-79	G9-82	G9-82	G9-82	G9-85	G9-85	G9-85
			Size	7	7	7	7	8	8	8
			Page	G9-82	G9-82	G9-82	G9-82	G9-85	G9-85	G9-85
	84	20.9	Size	7	7	7	8	8	8	—
			Page	G9-82	G9-82	G9-82	G9-85	G9-85	G9-85	—
			Size	7	8	8	8	8	8	—
	68	25.6	Page	G9-82	G9-82	G9-85	G9-85	G9-85	G9-85	—
			Size	7	8	8	8	8	8	—
			Page	G9-83	G9-86	G9-86	G9-86	G9-86	—	—
TRIPLE	56	31.4	Size	8	8	8	8	—	—	—
			Page	G9-86	G9-86	G9-86	G9-86	—	—	—
			Size	8	8	8	—	—	—	—
	45	38.4	Page	G9-86	G9-86	G9-86	—	—	—	—
			Size	8	8	8	—	—	—	—
			Page	G9-86	G9-86	G9-86	—	—	—	—
	37	47.1	Size	8	8	8	—	—	—	—
			Page	G9-86	G9-86	G9-86	—	—	—	—
			Size	8	8	8	—	—	—	—
	30	57.7	Page	G9-86	G9-86	G9-86	—	—	—	—
			Size	8	8	8	—	—	—	—
			Page	G9-86	G9-86	—	—	—	—	—
	25	70.6	Size	8	—	—	—	—	—	—
			Page	G9-86	—	—	—	—	—	—
			Size	8	—	—	—	—	—	—
	20	86.5	Page	G9-86	—	—	—	—	—	—
			Size	—	—	—	—	—	—	—
			Page	—	—	—	—	—	—	—
	16.5	105.9	Size	—	—	—	—	—	—	—
			Page	—	—	—	—	—	—	—
			Size	—	—	—	—	—	—	—
	13.5	129.7	Page	—	—	—	—	—	—	—

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-88, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



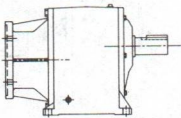
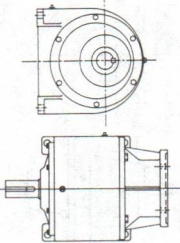
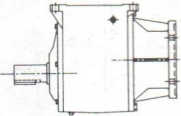
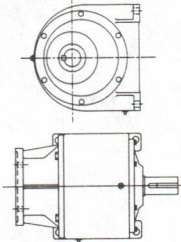
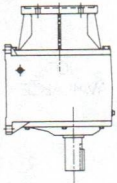
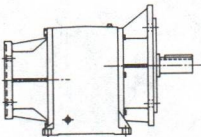
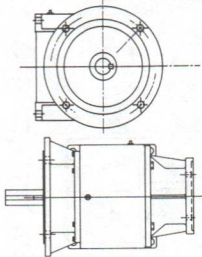
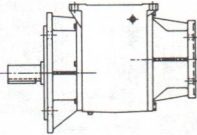
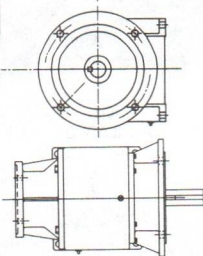
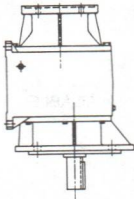
# DODGE APG Mounting Positions

## Single Reduction C-Face Reducer—Foot Mounted & Flange Mount

C1		C2		C3									
C4		C5		C6									
CF1		CF3		CF5									
CF6		<p><b>Note:</b> Shaded boxes indicate mounting <i>not</i> recommended. These should be avoided. Use of product in positions not recommended negates time-in-use warranty.</p>											
<table><tr><th colspan="2">REFERENCES</th></tr><tr><td>FEATURES G9-3</td><td>NOMENCLATURE G9-7</td></tr><tr><td>SELECTION G9-61</td><td>DIMENSIONS G9-88, G9-102</td></tr><tr><td>PRICING G9-112</td><td>INSTALLATION MAINTENANCE G9-108</td></tr></table>						REFERENCES		FEATURES G9-3	NOMENCLATURE G9-7	SELECTION G9-61	DIMENSIONS G9-88, G9-102	PRICING G9-112	INSTALLATION MAINTENANCE G9-108
REFERENCES													
FEATURES G9-3	NOMENCLATURE G9-7												
SELECTION G9-61	DIMENSIONS G9-88, G9-102												
PRICING G9-112	INSTALLATION MAINTENANCE G9-108												

# DODGE APG Mounting Positions

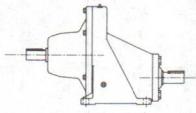
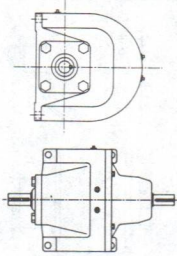
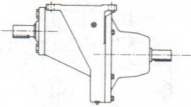
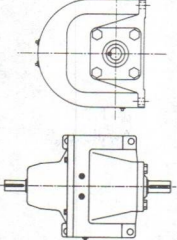
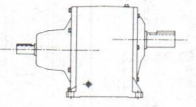
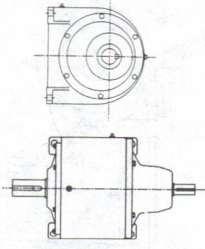
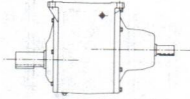
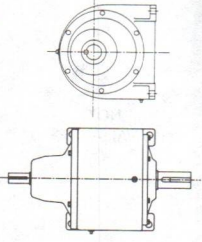
## Double/Triple Reduction C-Face Reducers—Foot Mounted & Flange Mount

A1 	A2 	A3 
A4 	A5 	A6 NOT AVAILABLE
AF1 	AF2 	AF3 
AF4 	AF5 	AF6 NOT AVAILABLE



# DODGE APG Mounting Positions

Single/Double/Triple Reduction Separate Reducers—Foot Mounted

<p>C1</p> 	<p>C2</p> 	<p>C3</p> 
<p>C4</p> 	<p>C5</p> <p>NOT AVAILABLE</p>	<p>C6</p> <p>NOT AVAILABLE</p>
<p>A1</p> 	<p>A2</p> 	<p>A3</p> 
<p>A4</p> 	<p>A5</p> <p>NOT AVAILABLE</p>	<p>A6</p> <p>NOT AVAILABLE</p>

# DODGE APG Reducer Ratings—Size 3

## Single Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
1.22	Output RPM	2951	2049	1434	1172	959	713	590	475	82.0
	Output Torque, in-lb	377	422	487	495	501	517	525	537	625
	Output HP (Max.)	17.6	13.7	11.1	9.21	7.62	5.85	4.92	4.05	.813
	Input HP (Max.)	18.0	14.0	11.3	9.40	7.78	5.97	5.02	4.13	.83
	OHL Output Shaft (1)	532	500	531	590	605	710	708	756	1474
	OHL Input Shaft (1)	93.2	118	91.6	174	202	243	273	309	309
1.50	Output RPM	2400	1667	1167	953	780	580	480	387	66.7
	Output Torque, in-lb	386	445	530	528	538	549	544	565	649
	Output HP (Max.)	14.7	11.8	9.8	7.99	6.65	5.06	4.15	3.47	.686
	Input HP (Max.)	15.0	12.0	10.0	8.15	6.79	5.16	4.23	3.54	.70
	OHL Output Shaft (1)	615	550	550	635	686	790	803	881	1506
	OHL Input Shaft (1)	134	146	110	180	207	250	288	319	319
1.84	Output RPM	1957	1359	951	777	636	473	391	315	54.3
	Output Torque, in-lb	442	500	529	540	549	558	565	574	659
	Output HP (Max.)	13.7	10.8	7.99	6.65	5.54	4.18	3.51	2.87	.568
	Input HP (Max.)	14.0	11.0	8.15	6.79	5.65	4.27	3.58	2.93	.58
	OHL Output Shaft (1)	618	640	695	780	786	862	950	1015	1538
	OHL Input Shaft (1)	127	140	177	201	228	274	305	344	344
2.25	Output RPM	1600	1111	778	636	520	387	320	258	44.4
	Output Torque, in-lb	463	523	555	549	554	565	573	585	667
	Output HP (Max.)	11.8	9.21	6.86	5.54	4.57	3.47	2.91	2.39	.470
	Input HP (Max.)	12.0	9.40	7.0	5.65	4.66	3.54	2.97	2.44	.48
	OHL Output Shaft (1)	688	740	750	850	900	1000	1075	1142	1573
	OHL Input Shaft (1)	121	138	170	208	238	282	314	351	351
2.76	Output RPM	1306	907	635	519	425	316	261	210	36.3
	Output Torque, in-lb	473	532	550	555	557	573	582	593	681
	Output HP (Max.)	9.8	7.65	5.54	4.57	3.75	2.87	2.41	1.98	.392
	Input HP (Max.)	10.0	7.81	5.65	4.66	3.83	2.93	2.46	2.02	.40
	OHL Output Shaft (1)	752	810	879	960	995	1094	1170	1241	1604
	OHL Input Shaft (1)	134	152	192	220	250	293	324	362	362
3.38	Output RPM	1067	741	519	424	347	258	213	172	29.6
	Output Torque, in-lb	521	540	555	558	574	585	591	604	688
	Output HP (Max.)	8.82	6.35	4.57	3.75	3.16	2.39	2.00	1.65	.323
	Input HP (Max.)	9.00	6.48	4.66	3.83	3.22	2.44	2.04	1.68	.33
	OHL Output Shaft (1)	782	873	957	1025	1160	1119	1250	1341	1639
	OHL Input Shaft (1)	129	164	206	234	260	305	338	375	375
4.13	Output RPM	871	605	423	346	283	210	174	140	24.2
	Output Torque, in-lb	533	547	559	575	572	593	603	621	715
	Output HP (Max.)	7.37	5.25	3.75	3.16	2.57	1.98	1.666	1.38	.274
	Input HP (Max.)	7.52	5.36	3.83	3.22	2.62	2.02	1.7	1.41	.28
	OHL Output Shaft (1)	852	941	1050	1098	1115	1116	1300	1412	1671
	OHL Input Shaft (1)	135	173	216	239	271	314	345	380	380
5.06	Output RPM	711	494	346	283	231	172	142	115	19.8
	Output Torque, in-lb	541	556	575	573	585	604	621	636	688
	Output HP (Max.)	6.11	4.36	3.16	2.57	2.15	1.65	1.401	1.16	.216
	Input HP (Max.)	6.23	4.45	3.22	2.62	2.19	1.68	1.43	1.18	.22
	OHL Output Shaft (1)	913	1050	1118	1196	1320	1381	1405	1440	1705
	OHL Input Shaft (1)	137	174	215	245	272	315	343	380	380

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG Reducer Ratings—Size 3

## Double Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
4.13	Output RPM	872	605	424	346	283	211	174	140	24
	Output Torque, in-lb	1249	1499	1642	1765	1794	1850	1860	1943	2249
	Output HP (Max.)	17.28	14.40	11.04	9.70	8.06	6.18	5.15	4.33	.86
	Input HP (Max.)	18.00	15.00	11.50	10.10	8.40	6.44	5.36	4.51	.90
	OHL Output Shaft (1)	830	925	1040	1140	1200	1400	1450	1570	1940
	OHL Input Shaft (1)	93	10	60	55	161	220	253	282	282
5.06	Output RPM	711	494	346	283	231	172	142	115	20
	Output Torque, in-lb	1361	1592	1749	1918	1963	2013	2050	2085	2449
	Output HP (Max.)	15.36	12.48	9.60	8.60	7.20	5.49	4.63	3.79	.77
	Input HP (Max.)	16.00	13.00	10.00	8.96	7.50	5.72	4.82	3.95	.80
	OHL Output Shaft (1)	880	980	1120	1160	1300	1450	1550	1670	1970
	OHL Input Shaft (1)	86	41	90	49	142	219	249	186	186
6.20	Output RPM	581	403	282	231	189	140	116	93.5	16.1
	Output Torque, in-lb	1876	2101	2422	2466	2494	2574	2615	2671	3114
	Output HP (Max.)	17.3	13.4	10.8	9.02	7.47	5.73	4.82	3.96	.797
	Input HP (Max.)	18.0	14.0	11.3	9.40	7.78	5.97	5.02	4.13	.83
	OHL Output Shaft (1)	770	880	960	1100	1250	1360	1380	1420	1670
	OHL Input Shaft (1)	93.2	118	91.6	174	202	243	273	309	309
7.59	Output RPM	474	329	231	188	154	115	94.9	76.4	13.2
	Output Torque, in-lb	1913	2204	2620	2617	2665	2724	2698	2803	3215
	Output HP (Max.)	14.4	11.5	9.6	7.82	6.52	4.95	4.06	3.40	.672
	Input HP (Max.)	15.0	12.0	10.0	8.15	6.79	5.16	4.23	3.54	.70
	OHL Output Shaft (1)	860	960	1030	1200	1290	1340	1370	1380	1680
	OHL Input Shaft (1)	134	146	110	180	207	250	288	319	319
9.30	Output RPM	387	269	188	154	126	93.5	77.4	62.4	10.8
	Output Torque, in-lb	2188	2476	2621	2672	2717	2762	2798	2843	3264
	Output HP (Max.)	13.4	10.6	7.82	6.52	5.42	4.10	3.44	2.81	.557
	Input HP (Max.)	14.0	11.0	8.15	6.79	5.65	4.27	3.58	2.93	.58
	OHL Output Shaft (1)	900	980	1230	1290	1300	1370	1390	1380	1680
	OHL Input Shaft (1)	127	140	177	201	228	274	305	344	344
11.4	Output RPM	316	219	154	126	103	76.4	63.2	50.9	8.78
	Output Torque, in-lb	2297	2591	2750	2723	2745	2804	2843	2899	3308
	Output HP (Max.)	11.5	9.02	6.72	5.42	4.47	3.40	2.85	2.34	.461
	Input HP (Max.)	12.0	9.40	7.0	5.65	4.66	3.54	2.97	2.44	.48
	OHL Output Shaft (1)	1000	1080	1240	1300	1320	1380	1410	1460	1730
	OHL Input Shaft (1)	121	138	170	208	238	282	314	351	351
14.0	Output RPM	258	179	125	103	83.9	62.4	51.6	41.6	7.17
	Output Torque, in-lb	2345	2637	2725	2750	2763	2843	2884	2940	3376
	Output HP (Max.)	9.6	7.50	5.42	4.47	3.68	2.81	2.36	1.94	.384
	Input HP (Max.)	10.0	7.81	5.65	4.66	3.83	2.93	2.46	2.02	.40
	OHL Output Shaft (1)	1070	1240	1300	1320	1400	1420	1460	1490	1700
	OHL Input Shaft (1)	134	152	192	220	250	293	324	362	362
17.1	Output RPM	211	146	102	83.7	68.5	50.9	42.1	33.9	5.85
	Output Torque, in-lb	2585	2680	2753	2769	2846	2900	2930	2995	3412
	Output HP (Max.)	8.64	6.22	4.47	3.68	3.09	2.34	1.96	1.61	.317
	Input HP (Max.)	9.00	6.48	4.66	3.83	3.22	2.44	2.04	1.68	.33
	OHL Output Shaft (1)	1140	1330	1320	1400	1380	1450	1470	1500	1760
	OHL Input Shaft (1)	129	164	206	234	260	305	338	375	375
20.9	Output RPM	172	119	84	68.3	55.9	41.6	34.4	27.7	4.78
	Output Torque, in-lb	2645	2715	2771	2851	2836	2940	2990	3079	3546
	Output HP (Max.)	7.22	5.15	3.68	3.09	2.52	1.94	1.63	1.35	.269
	Input HP (Max.)	7.52	5.36	3.83	3.22	2.62	2.02	1.70	1.41	.28
	OHL Output Shaft (1)	1260	1340	1400	1390	1460	1490	1480	1520	1800
	OHL Input Shaft (1)	135	173	216	239	271	314	345	380	380
25.6	Output RPM	141	97.6	68	55.8	45.7	34.0	28.1	22.6	3.90
	Output Torque, in-lb	2683	2759	2852	2840	2901	2993	3079	3154	3410
	Output HP (Max.)	5.98	4.27	3.09	2.52	2.10	1.61	1.37	1.13	.211
	Input HP (Max.)	6.23	4.45	3.22	2.62	2.19	1.68	1.43	1.18	.22
	OHL Output Shaft (1)	1360	1360	1490	1460	1460	1500	1480	1560	1840
	OHL Input Shaft (1)	137	174	215	245	272	315	343	380	380

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

# DODGE APG Reducer Ratings—Size 3

## Triple Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
31.4	Output RPM	115	79.6	55.8	45.6	37.3	27.7	22.9	18.5	3.19
	Output Torque, in-lb	2376	2685	2837	2913	2988	3078	3151	3174	3533
	Output HP (Max.)	4.32	3.39	2.510	2.11	1.767	1.35	1.147	.931	.179
	Input HP (Max.)	4.60	3.61	2.67	2.24	1.88	1.44	1.22	.99	.19
	OHL Output Shaft (1)	1520	1450	1455	1450	1470	1520	1550	1590	1930
	OHL Input Shaft (1)	217	245	284	309	336	380	411	451	451
38.4	Output RPM	93.7	65.0	45.5	37.2	30.4	22.6	18.7	15.1	2.60
	Output Torque, in-lb	2594	2833	2915	2994	3056	3167	3163	3180	3416
	Output HP (Max.)	3.85	2.92	2.106	1.77	1.476	1.14	.940	.761	.141
	Input HP (Max.)	4.10	3.11	2.24	1.88	1.57	1.21	1.00	.81	.15
	OHL Output Shaft (1)	1460	1410	1460	1460	1485	1560	1580	1620	2120
	OHL Input Shaft (1)	228	261	304	329	357	402	436	476	476
47.1	Output RPM	76.5	53.1	37.2	30.4	24.9	18.5	15.3	12.3	2.12
	Output Torque, in-lb	2774	2878	2996	3062	3099	3174	3177	3270	3347
	Output HP (Max.)	3.37	2.43	1.767	1.48	1.222	.931	.771	.639	.113
	Input HP (Max.)	3.58	2.58	1.88	1.57	1.30	.99	.82	.68	.12
	OHL Output Shaft (1)	1400	1450	1470	1480	1540	1580	1620	1650	2150
	OHL Input Shaft (1)	240	278	321	347	376	423	456	494	494
57.7	Output RPM	62.4	43.4	30.4	24.8	20.3	15.1	12.5	10.1	1.73
	Output Torque, in-lb	2837	2924	3064	3105	3123	3180	3273	3298	3074
	Output HP (Max.)	2.81	2.01	1.476	1.22	1.006	.761	.649	.526	.085
	Input HP (Max.)	2.99	2.14	1.57	1.30	1.07	.81	.69	.56	.09
	OHL Output Shaft (1)	1430	1460	1485	1540	1560	1620	1660	1700	2180
	OHL Input Shaft (1)	253	293	335	363	392	439	471	511	511
70.6	Output RPM	51.0	35.4	24.8	20.2	16.6	12.3	10.2	8.21	1.42
	Output Torque, in-lb	2894	2979	3108	3131	3147	3270	3370	3390	3347
	Output HP (Max.)	2.34	1.67	1.222	1.01	.827	.639	.545	.442	.075
	Input HP (Max.)	2.49	1.78	1.30	1.07	.88	.68	.58	.47	.08
	OHL Output Shaft (1)	1460	1480	1540	1560	1610	1660	1680	1670	2200
	OHL Input Shaft (1)	218	256	298	325	355	399	429	469	469
86.5	Output RPM	41.6	28.9	20.2	16.5	13.5	10.1	8.33	6.71	1.16
	Output Torque, in-lb	2932	3054	3133	3189	3240	3298	3344	3357	3586
	Output HP (Max.)	1.94	1.40	1.006	.837	.696	.526	.442	.357	.066
	Input HP (Max.)	2.06	1.49	1.07	.89	.74	.56	.47	.38	.07
	OHL Output Shaft (1)	1510	1490	1560	1600	1650	1700	1700	1740	2270
	OHL Input Shaft (1)	236	274	317	344	373	419	452	492	492
105.9	Output RPM	34.0	23.6	16.5	13.5	11.0	8.22	6.80	5.48	.944
	Output Torque, in-lb	2998	3137	3191	3247	3325	3389	3398	3461	3137
	Output HP (Max.)	1.62	1.18	.837	.696	.583	.442	.367	.301	.047
	Input HP (Max.)	1.72	1.25	.89	.74	.62	.47	.39	.32	.05
	OHL Output Shaft (1)	1490	1460	1600	1650	1660	1710	1770	1760	2300
	OHL Input Shaft (1)	250	288	332	360	388	435	468	508	508
129.7	Output RPM	27.8	19.3	13.5	11.0	9.02	6.71	5.55	4.47	.771
	Output Torque, in-lb	3074	3135	3290	3331	3284	3356	3415	3444	3074
	Output HP (Max.)	1.35	.959	.705	.583	.470	.357	.301	.244	.038
	Input HP (Max.)	1.44	1.02	.75	.62	.50	.38	.32	.26	.04
	OHL Output Shaft (1)	1520	1600	1660	1660	1740	1720	1780	1860	2300
	OHL Input Shaft (1)	261	302	300	372	403	450	483	523	523

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-88, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DODGE APG Reducer Ratings—Size 4

## Single Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	970	720	580	100
1.22	Output RPM	2951	2049	1434	1172	959	713	590	475	82.0
	Output Torque, in-lb	724	775	860	859	889	944	973	998	1153
	Output HP (Max.)	33.9	25.2	19.6	16.0	13.5	10.7	9.11	7.53	1.50
	Input HP (Max.)	34.6	25.7	20.0	16.3	13.8	10.9	9.30	7.68	1.53
	OHL Output Shaft (1)	464	450	530	755	605	740	635	710	1280
	OHL Input Shaft (1)	110	221	260	300	335	387	427	481	481
1.50	Output RPM	2400	1667	1167	953	780	580	480	387	66.7
	Output Torque, in-lb	759	814	868	901	934	987	1000	1016	1167
	Output HP (Max.)	28.9	21.5	16.1	13.6	11.6	9.08	7.61	6.23	1.23
	Input HP (Max.)	29.5	22.0	16.4	13.9	11.8	9.27	7.77	6.36	1.26
	OHL Output Shaft (1)	540	610	647	660	700	760	790	860	1310
	OHL Input Shaft (1)	200	245	295	327	361	417	465	524	524
1.84	Output RPM	1957	1359	951	777	636	473	391	315	54.3
	Output Torque, in-lb	792	846	909	938	981	1003	1017	1031	1193
	Output HP (Max.)	24.6	18.2	13.72	11.6	9.90	7.53	6.31	5.15	1.03
	Input HP (Max.)	25.1	18.6	14.0	11.8	10.1	7.68	6.44	5.26	1.05
	OHL Output Shaft (1)	638	700	750	900	820	895	950	1062	1340
	OHL Input Shaft (1)	208	253	300	337	368	437	486	546	546
2.25	Output RPM	1600	1111	778	636	520	387	320	258	44.4
	Output Torque, in-lb	822	878	945	982	994	1016	1029	1049	1209
	Output HP (Max.)	20.9	15.5	11.7	9.90	8.20	6.23	5.22	4.29	.853
	Input HP (Max.)	21.3	15.8	11.9	10.1	8.37	6.36	5.33	4.38	.87
	OHL Output Shaft (1)	718	810	845	1030	920	1041	1140	1160	1370
	OHL Input Shaft (1)	221	268	317	350	394	464	513	571	571
2.76	Output RPM	1306	907	635	519	425	316	261	210	36.3
	Output Torque, in-lb	851	912	982	996	998	1029	1047	1065	1226
	Output HP (Max.)	17.6	13.1	9.90	8.20	6.72	5.15	4.34	3.56	.706
	Input HP (Max.)	18.0	13.4	10.1	8.37	6.86	5.26	4.43	3.63	.72
	OHL Output Shaft (1)	804	900	940	1000	1070	1140	1165	1185	1400
	OHL Input Shaft (1)	222	268	317	358	406	473	520	580	580
3.38	Output RPM	1067	741	519	424	347	258	213	172	29.6
	Output Torque, in-lb	886	951	997	1000	1032	1049	1065	1093	1230
	Output HP (Max.)	15.0	11.2	8.20	6.72	5.67	4.29	3.61	2.98	.578
	Input HP (Max.)	15.3	11.4	8.37	6.86	5.79	4.38	3.68	3.04	.59
	OHL Output Shaft (1)	869	955	1025	1060	1140	1165	1190	1210	1430
	OHL Input Shaft (1)	232	278	336	381	420	491	540	597	597
4.13	Output RPM	871	605	423	346	283	210	174	140	24.2
	Output Torque, in-lb	922	984	1001	1034	1030	1065	1089	1114	1226
	Output HP (Max.)	12.7	9.44	6.72	5.67	4.63	3.56	3.01	2.48	.470
	Input HP (Max.)	13.0	9.63	6.86	5.79	4.72	3.63	3.07	2.53	.48
	OHL Output Shaft (1)	938	1030	1125	1135	1170	1190	1220	1240	1465
	OHL Input Shaft (1)	235	283	351	387	436	503	550	608	608
5.06	Output RPM	711	494	346	283	231	172	142	115	20
	Output Torque, in-lb	692	724	764	747	766	794	807	835	906
	Output HP (Max.)	7.82	5.67	4.19	3.35	2.81	2.17	1.82	1.52	0.28
	Input HP (Max.)	7.98	5.79	4.28	3.42	2.87	2.21	1.86	1.55	0.29
	OHL Output Shaft (1)	1014	1115	1265	1160	1180	1215	1235	1262	1500
	OHL Input Shaft (1)	270	340	400	460	510	580	640	700	700

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-88, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-88

# DODGE APG Reducer Ratings—Size 4

## Double Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
4.13	Output RPM	872	605	424	346	283	211	174	140	24
	Output Torque, in-lb	2429	2799	3084	3198	3310	3504	3575	3860	4473
	Output HP (Max.)	33.60	26.88	20.74	17.57	14.88	11.71	9.89	8.60	1.72
	Input HP (Max.)	35.00	28.00	21.60	18.30	15.50	12.20	10.30	8.96	1.79
	OHL Output Shaft (1)	700	750	950	1070	1200	1550	1650	1800	2400
	OHL Input Shaft (1)	85	47	113	211	284	335	375	405	405
5.06	Output RPM	711	494	346	283	231	172	142	115	20
	Output Torque, in-lb	2721	3062	3495	3490	3637	3836	4014	4101	4807
	Output HP (Max.)	30.72	24.00	19.2	15.65	13.34	10.46	9.06	7.46	1.51
	Input HP (Max.)	32.00	25.00	20.0	16.30	13.90	10.90	9.44	7.77	1.57
	OHL Output Shaft (1)	670	800	1000	1200	1250	1600	1800	2050	2300
	OHL Input Shaft (1)	77	96	150	262	290	345	375	415	415
6.20	Output RPM	581	403	282	231	189	140	116	93.5	16.1
	Output Torque, in-lb	3605	3856	4289	4276	4425	4700	4845	4967	5739
	Output HP (Max.)	33.2	24.7	19.2	15.6	13.2	10.46	8.93	7.37	1.47
	Input HP (Max.)	34.6	25.7	20	16.3	13.8	10.9	9.30	7.68	1.53
	OHL Output Shaft (1)	470	630	800	1110	1220	1270	1380	1450	2200
	OHL Input Shaft (1)	110	221	260	300	335	387	427	481	481
7.59	Output RPM	474	329	231	188	154	115	94.9	76.4	13.2
	Output Torque, in-lb	3763	4034	4304	4464	4632	4893	4956	5036	5786
	Output HP (Max.)	28.3	21.1	15.7	13.3	11.3	8.90	7.46	6.11	1.21
	Input HP (Max.)	29.5	22.0	16.4	13.9	11.8	9.27	7.77	6.36	1.26
	OHL Output Shaft (1)	550	720	1100	1200	1210	1360	1450	1930	2300
	OHL Input Shaft (1)	200	245	295	327	361	417	465	524	524
9.30	Output RPM	387	269	188	154	126	93.5	77.4	62.4	10.8
	Output Torque, in-lb	3923	4186	4500	4643	4857	4967	5033	5103	5908
	Output HP (Max.)	24.1	17.9	13.44	11.3	9.70	7.37	6.18	5.05	1.01
	Input HP (Max.)	25.1	18.6	14.0	11.8	10.1	7.68	6.44	5.26	1.05
	OHL Output Shaft (1)	640	970	1150	1100	1340	1450	1970	2020	2340
	OHL Input Shaft (1)	208	253	300	337	368	437	486	546	546
11.4	Output RPM	316	219	154	126	103	76.4	63.2	50.9	8.78
	Output Torque, in-lb	4077	4355	4686	4867	4930	5038	5102	5204	5996
	Output HP (Max.)	20.4	15.2	11.4	9.70	8.04	6.11	5.12	4.20	.835
	Input HP (Max.)	21.3	15.8	11.9	10.1	8.37	6.36	5.33	4.38	.87
	OHL Output Shaft (1)	680	1140	1200	1330	1300	1980	2040	2040	2340
	OHL Input Shaft (1)	221	268	317	350	394	464	513	571	571
14.0	Output RPM	258	179	125	103	83.9	62.4	51.6	41.6	7.17
	Output Torque, in-lb	4220	4524	4871	4940	4949	5103	5193	5282	6077
	Output HP (Max.)	17.3	12.9	9.70	8.04	6.59	5.05	4.25	3.48	.691
	Input HP (Max.)	18.0	13.4	10.1	8.37	6.86	5.26	4.43	3.63	.72
	OHL Output Shaft (1)	970	1210	1330	1250	1840	2040	2060	2060	2390
	OHL Input Shaft (1)	222	268	317	358	406	473	520	580	580
17.1	Output RPM	211	146	102	83.7	68.5	50.9	42.1	33.9	5.85
	Output Torque, in-lb	4395	4715	4946	4960	5117	5206	5285	5420	6101
	Output HP (Max.)	14.7	10.9	8.04	6.59	5.56	4.20	3.53	2.92	.566
	Input HP (Max.)	15.3	11.4	8.37	6.86	5.79	4.38	3.68	3.04	.59
	OHL Output Shaft (1)	1120	1230	1250	1830	2000	2050	2020	2050	2400
	OHL Input Shaft (1)	232	278	336	381	420	491	540	597	597
20.9	Output RPM	172	119	84	68.3	55.9	41.6	34.4	27.7	4.78
	Output Torque, in-lb	4573	4878	5040	5127	5109	5284	5400	5524	6078
	Output HP (Max.)	12.5	9.24	6.72	5.56	4.53	3.48	2.95	2.43	.461
	Input HP (Max.)	13.0	9.63	7.0	5.79	4.72	3.63	3.07	2.53	.48
	OHL Output Shaft (1)	1250	1360	1750	1990	2000	2060	2000	2130	2400
	OHL Input Shaft (1)	235	283	300	387	436	503	550	608	608
25.6	Output RPM	141	98	68	56	46	34	28	23	4
	Output Torque, in-lb	3432	3586	3787	3703	3798	3933	4000	4138	4490
	Output HP (Max.)	7.66	5.56	4.11	3.28	2.76	2.12	1.79	1.49	0.28
	Input HP (Max.)	7.98	5.79	4.28	2.42	2.87	2.21	1.86	1.55	0.29
	OHL Output Shaft (1)	1280	1500	1990	2070	2010	2100	2060	2120	2400
	OHL Input Shaft (1)	270	340	400	460	510	580	640	700	700

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.



# DODGE APG Reducer Ratings—Size 4

## Triple Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
31.4	Output RPM	115	79.6	55.8	45.6	37.3	27.7	22.9	18.5	3.19
	Output Torque, in-lb	3136	3585	4245	4448	4975	5322	5682	5707	6137
	Output HP (Max.)	5.71	4.53	3.76	3.21	2.94	2.34	2.07	1.67	.310
	Input HP (Max.)	6.07	4.82	4.0	3.42	3.13	2.49	2.20	1.78	.33
	OHL Output Shaft (1)	2030	2400	2400	2400	2240	2260	2100	2170	2400
	OHL Input Shaft (1)	412	464	500	555	586	652	694	759	759
38.4	Output RPM	93.7	65.0	45.5	37.2	30.4	22.6	18.7	15.1	2.60
	Output Torque, in-lb	3473	3981	4555	4921	5333	5706	5693	5772	6149
	Output HP (Max.)	5.16	4.11	3.29	2.90	2.58	2.05	1.69	1.38	.254
	Input HP (Max.)	5.49	4.37	3.50	3.09	2.74	2.18	1.80	1.47	.27
	OHL Output Shaft (1)	2200	2400	2390	2280	2120	2120	2160	2250	2400
	OHL Input Shaft (1)	422	475	533	569	606	674	728	791	791
47.1	Output RPM	76.5	53.1	37.2	30.4	24.9	18.5	15.3	12.3	2.12
	Output Torque, in-lb	3773	4329	4941	5344	5578	5578	5772	5867	6136
	Output HP (Max.)	4.58	3.65	2.91	2.58	2.20	1.64	1.40	1.15	.207
	Input HP (Max.)	4.87	3.88	3.10	2.74	2.34	1.74	1.49	1.22	.22
	OHL Output Shaft (1)	2400	2400	2260	2040	2130	2190	2220	2260	2400
	OHL Input Shaft (1)	432	487	547	583	627	704	754	818	818
57.7	Output RPM	62.4	43.4	30.4	24.8	20.3	15.1	12.5	10.1	1.73
	Output Torque, in-lb	3985	4577	5211	5589	5692	5653	5882	6006	6148
	Output HP (Max.)	3.95	3.15	2.51	2.20	1.83	1.35	1.17	.959	.169
	Input HP (Max.)	4.20	3.35	2.67	2.34	1.95	1.44	1.24	1.02	.18
	OHL Output Shaft (1)	2400	2400	2210	2120	2140	2240	2300	2320	2400
	OHL Input Shaft (1)	444	499	562	600	647	725	775	838	838
70.6	Output RPM	51.0	35.4	24.8	20.2	16.6	12.3	10.2	8.21	1.42
	Output Torque, in-lb	4370	5021	5499	5705	5686	5723	6043	6131	6276
	Output HP (Max.)	3.53	2.82	2.16	1.83	1.49	1.12	.978	.799	.141
	Input HP (Max.)	3.76	3.00	2.30	1.95	1.59	1.19	1.04	.85	.15
	OHL Output Shaft (1)	2400	2250	2170	2130	2200	2290	2300	2360	2400
	OHL Input Shaft (1)	399	447	508	548	597	673	719	782	782
86.5	Output RPM	41.6	28.9	20.2	16.5	13.5	10.1	8.33	6.71	1.16
	Output Torque, in-lb	4839	5369	5860	5768	5824	5889	6048	6183	6148
	Output HP (Max.)	3.20	2.46	1.88	1.51	1.25	.940	.799	.658	.113
	Input HP (Max.)	3.40	2.62	2.0	1.61	1.33	1.00	.85	.70	.12
	OHL Output Shaft (1)	2330	2180	2050	2160	2270	2340	2400	2380	2400
	OHL Input Shaft (1)	409	464	500	574	621	698	748	811	811
105.9	Output RPM	34.0	23.6	16.5	13.5	11.0	8.22	6.80	5.48	.944
	Output Torque, in-lb	5228	5646	5772	5835	5952	6058	6100	6166	6274
	Output HP (Max.)	2.82	2.11	1.513	1.25	1.04	.790	.658	.536	.094
	Input HP (Max.)	3.00	2.25	1.61	1.33	1.11	.84	.70	.57	.10
	OHL Output Shaft (1)	2200	2020	2160	2270	2260	2360	2400	2400	2400
	OHL Input Shaft (1)	421	481	552	596	642	718	771	836	836
129.7	Output RPM	27.8	19.3	13.5	11.0	9.02	6.71	5.55	4.47	.771
	Output Torque, in-lb	5507	5625	5840	5964	5976	6006	6190	6227	6147
	Output HP (Max.)	2.43	1.72	1.250	1.04	.855	.639	.545	.442	.075
	Input HP (Max.)	2.58	1.83	1.33	1.11	.91	.68	.58	.47	.08
	OHL Output Shaft (1)	2110	2240	2270	2280	2360	2400	2400	2400	2400
	OHL Input Shaft (1)	434	499	569	613	661	739	790	855	855

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-88, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87

# DODGE APG Reducer Ratings—Size 5

## Single Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
1.22	Output RPM	2951	2049	1434	1172	959	713	590	475	82.0
	Output Torque, in-lb	1465	1625	1722	1713	1732	1793	1821	1858	2170
	Output HP (Max.)	68.6	52.8	39.2	31.8	26.4	20.3	17.1	14.0	2.82
	Input HP (Max.)	70.0	53.9	40.0	32.5	26.9	20.7	17.4	14.3	2.88
	OHL Output Shaft (1)	960	975	1010	1060	1070	1105	1122	1157	1367
	OHL Input Shaft (1)	14.8	82.8	390	460	528	626	699	787	787
1.50	Output RPM	2400	1667	1167	953	780	580	480	387	66.7
	Output Torque, in-lb	1544	1757	1853	1872	1916	1970	2007	2045	2381
	Output HP (Max.)	58.8	46.5	34.3	28.3	23.7	18.1	15.3	12.5	2.52
	Input HP (Max.)	60.0	47.4	35.0	28.9	24.2	18.5	15.6	12.8	2.57
	OHL Output Shaft (1)	1020	1035	1065	1075	1095	1130	1132	1173	1389
	OHL Input Shaft (1)	116	105	373	460	520	622	693	782	782
1.84	Output RPM	1957	1359	951	777	636	473	391	315	54.3
	Output Torque, in-lb	1578	1827	194.8	1987	2020	2051	2084	2116	2466
	Output HP (Max.)	49.0	39.4	29.4	24.5	20.4	15.4	12.9	10.6	2.13
	Input HP (Max.)	50.0	40.2	30.0	25.0	20.8	15.7	13.2	10.8	2.17
	OHL Output Shaft (1)	1043	1080	1100	1135	1149	1189	1165	1238	1463
	OHL Input Shaft (1)	245	191	400	465	530	640	713	805	805
2.25	Output RPM	1600	1111	778	636	520	387	320	258	44.4
	Output Torque, in-lb	1768	1890	1985	2021	2031	2077	2104	2152	2501
	Output HP (Max.)	44.9	33.3	24.5	20.4	16.8	12.7	10.7	8.80	1.76
	Input HP (Max.)	45.8	34.0	25.0	20.8	17.1	13.0	10.9	8.98	1.80
	OHL Output Shaft (1)	1065	1105	1138	1160	1183	1217	1245	1264	1495
	OHL Input Shaft (1)	145	351	445	505	577	684	760	848	848
2.76	Output RPM	1306	907	635	519	425	316	261	210	36.3
	Output Torque, in-lb	1830	1954	2040	2036	2051	2113	2144	2186	2519
	Output HP (Max.)	37.9	28.1	20.6	16.8	13.8	10.6	8.89	7.30	1.45
	Input HP (Max.)	38.7	28.7	21	17.1	14.1	10.8	9.07	7.45	1.48
	OHL Output Shaft (1)	1086	1130	1155	1185	1209	1242	1265	1291	1525
	OHL Input Shaft (1)	203	371	460	533	603	707	782	872	872
3.38	Output RPM	1067	741	519	424	347	258	213	172	29.6
	Output Torque, in-lb	1899	1984	2037	2055	2120	2152	2186	2239	2501
	Output HP (Max.)	32.1	23.3	16.8	13.8	11.7	8.80	7.40	6.11	1.18
	Input HP (Max.)	32.8	23.8	17.1	14.1	11.9	8.98	7.55	6.23	1.20
	OHL Output Shaft (1)	1108	1147	1186	1220	1240	1268	1295	1317	1559
	OHL Input Shaft (1)	303	401	501	567	625	737	812	900	900
4.13	Output RPM	871	605	423	346	283	210	174	140	24.2
	Output Torque, in-lb	1958	2012	2057	2125	2110	2186	2231	2289	2553
	Output HP (Max.)	27.0	19.3	13.8	11.7	9.5	7.30	6.16	5.10	.98
	Input HP (Max.)	27.6	19.7	14.1	11.9	9.67	7.45	6.29	5.20	1.00
	OHL Output Shaft (1)	1130	1170	1225	1233	1265	1294	1325	1344	1589
	OHL Input Shaft (1)	330	420	522	577	655	757	830	917	917
5.06	Output RPM	711	494	346	283	231	172	142	115	19.8
	Output Torque, in-lb	1988	2038	2125	2113	2161	2238	2279	2371	2531
	Output HP (Max.)	22.4	16.0	11.7	9.5	7.9	6.11	5.15	4.31	.79
	Input HP (Max.)	22.9	16.3	11.9	9.67	8.09	6.23	5.25	4.40	.81
	OHL Output Shaft (1)	1153	1205	1234	1260	1290	1319	1345	1370	1622
	OHL Input Shaft (1)	334	425	518	591	655	757	831	911	911

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.  
On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-92, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DODGE APG Reducer Ratings—Size 5

## Double Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
4.13	Output RPM	872	605	424	346	283	211	174	140	24
	Output Torque, in-lb	4859	5397	5740	5854	5916	6089	6143	6419	7446
	Output HP (Max.)	67.20	51.84	38.59	32.16	26.59	20.35	16.99	14.30	2.86
	Input HP (Max.)	70.00	54.00	40.20	33.50	27.70	21.20	17.70	14.90	2.98
	OHL Output Shaft (1)	1300	1460	1725	1840	2050	2300	2400	2550	3600
5.06	OHL Input Shaft (1)	15	75	311	440	510	610	685	760	760
	Output RPM	711	494	346	283	231	172	142	115	20
	Output Torque, in-lb	5273	5878	6315	6401	6542	6721	6803	6968	8174
	Output HP (Max.)	59.52	46.08	34.66	28.70	24.00	18.34	15.36	12.67	2.56
	Input HP (Max.)	62.00	48.00	36.10	29.90	25.00	19.10	16.00	13.20	2.67
6.20	OHL Output Shaft (1)	1300	1570	1800	2000	2100	2350	2500	2800	3600
	OHL Input Shaft (1)	10	60	254	440	500	600	675	760	760
	Output RPM	581	403	282	231	189	140	116	93.5	16.1
	Output Torque, in-lb	7294	8088	8580	8526	8625	8925	9066	9249	10804
	Output HP (Max.)	67.2	51.7	38.4	31.2	25.8	19.9	16.7	13.7	2.76
7.59	Input HP (Max.)	70.0	53.9	40.0	32.5	26.9	20.7	17.4	14.3	2.88
	OHL Output Shaft (1)	780	950	1250	1550	1750	2150	2500	2750	3600
	OHL Input Shaft (1)	14.8	82.8	390	460	528	626	699	787	787
	Output RPM	474	329	231	188	154	115	94.9	76.4	13.2
	Output Torque, in-lb	7654	8707	9185	9281	9499	9765	9950	10135	11802
9.30	Output HP (Max.)	57.6	45.5	33.6	27.7	23.2	17.8	15.0	12.3	2.47
	Input HP (Max.)	60.0	47.4	35.0	28.9	24.2	18.5	15.6	12.8	2.57
	OHL Output Shaft (1)	880	1000	1350	1570	1850	2350	2650	3000	3600
	OHL Input Shaft (1)	116	105	373	460	520	622	693	782	782
	Output RPM	387	269	188	154	126	93.5	77.4	62.4	10.8
11.4	Output Torque, in-lb	7815	9048	9650	9837	10003	10154	10316	10478	12210
	Output HP (Max.)	48.0	38.6	28.8	24.0	20.0	15.1	12.7	10.4	2.08
	Input HP (Max.)	50.0	40.2	30	25.0	20.8	15.7	13.2	10.8	2.17
	OHL Output Shaft (1)	1100	1150	1470	1800	2100	2700	2950	3250	3600
	OHL Input Shaft (1)	245	191	400	465	530	640	713	805	805
14.0	Output RPM	316	219	154	126	103	76.4	63.2	50.9	8.78
	Output Torque, in-lb	8767	9372	9845	10024	10072	10298	10433	10670	12405
	Output HP (Max.)	44.0	32.6	24.0	20.0	16.4	12.5	10.5	8.6	1.73
	Input HP (Max.)	45.8	34.0	25.0	20.8	17.1	13.0	10.9	8.98	1.80
	OHL Output Shaft (1)	1100	1300	1800	2100	2470	3000	3250	3570	3600
17.1	OHL Input Shaft (1)	145	351	445	505	577	684	760	848	848
	Output RPM	258	179	125	103	83.9	62.4	51.6	41.6	7.17
	Output Torque, in-lb	9073	9689	10160	10093	10172	10478	10632	10841	12492
	Output HP (Max.)	37.2	27.6	20.2	16.4	13.5	10.4	8.71	7.2	1.42
	Input HP (Max.)	38.7	28.7	21	17.1	14.1	10.8	9.07	7.45	1.48
20.9	OHL Output Shaft (1)	1200	1550	2050	2450	2900	3250	3570	3600	3600
	OHL Input Shaft (1)	203	371	460	533	603	707	782	872	872
	Output RPM	211	146	102	83.7	68.5	50.9	42.1	33.9	5.85
	Output Torque, in-lb	9421	9844	10104	10196	10517	10673	10843	11107	12408
	Output HP (Max.)	31.5	22.8	16.4	13.5	11.4	8.6	7.25	6.0	1.15
25.6	Input HP (Max.)	32.8	23.8	17.1	14.1	11.9	8.98	7.55	6.23	1.20
	OHL Output Shaft (1)	1350	1900	2470	2900	3150	3550	3600	3600	3600
	OHL Input Shaft (1)	303	401	501	567	625	737	812	900	900
	Output RPM	172	119	84	68.3	55.9	41.6	34.4	27.7	4.78
	Output Torque, in-lb	9709	9979	10203	10538	10466	10844	11063	11353	12663
25.6	Output HP (Max.)	26.5	18.9	13.5	11.4	9.28	7.2	6.04	4.99	.960
	Input HP (Max.)	27.6	19.7	14.1	11.9	9.67	7.45	6.29	5.20	1.00
	OHL Output Shaft (1)	1550	2300	2900	3100	3400	3600	3600	3600	3600
	OHL Input Shaft (1)	330	420	522	577	655	757	830	917	917
	Output RPM	141	97.6	68	55.8	45.7	34.0	28.1	22.6	3.90
25.6	Output Torque, in-lb	9860	10107	10541	10482	10718	11100	11303	11759	12556
	Output HP (Max.)	22.0	15.6	11.4	9.3	7.77	6.0	5.04	4.22	.778
	Input HP (Max.)	22.9	16.3	11.9	9.67	8.09	6.23	5.25	4.40	.81
	OHL Output Shaft (1)	1900	2550	3150	3400	3550	3600	3600	3600	3600
	OHL Input Shaft (1)	334	425	518	591	655	757	831	911	911

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

# DODGE APG Reducer Ratings—Size 5

## Triple Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
31.4	Output RPM	115	79.6	55.8	45.6	37.3	27.7	22.9	18.5	3.19
	Output Torque, in-lb	6302	7134	8034	8635	9171	10132	10796	11607	12646
	Output HP (Max.)	11.5	9.0	7.11	6.24	5.42	4.46	3.93	3.40	.639
	Input HP (Max.)	12.2	9.59	7.56	6.64	5.77	4.74	4.18	3.62	.68
	OHL Output Shaft (1)	2850	3250	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	633	715	805	860	921	1017	1083	1164	1164
38.4	Output RPM	93.7	65.0	45.5	37.2	30.4	22.6	18.7	15.1	2.60
	Output Torque, in-lb	6895	7788	9110	9428	10024	11072	11703	11858	12525
	Output HP (Max.)	10.2	8.0	6.58	5.56	4.84	3.98	3.48	2.84	.517
	Input HP (Max.)	10.9	8.55	7.0	5.92	5.15	4.23	3.70	3.02	.55
	OHL Output Shaft (1)	3250	3450	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	651	735	790	884	947	1045	1115	1213	1213
47.1	Output RPM	76.5	53.1	37.2	30.4	24.9	18.5	15.3	12.3	2.12
	Output Torque, in-lb	7384	8334	9550	10084	10728	11734	11854	12070	12551
	Output HP (Max.)	8.96	7.0	5.64	4.86	4.23	3.44	2.88	2.36	.423
	Input HP (Max.)	9.53	7.47	6.0	5.17	4.50	3.66	3.06	2.51	.45
	OHL Output Shaft (1)	3200	3600	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	669	755	840	909	973	1076	1157	1255	1255
57.7	Output RPM	62.4	43.4	30.4	24.8	20.3	15.1	12.5	10.1	1.73
	Output Torque, in-lb	7675	8661	9758	10509	11180	11856	12096	12366	12295
	Output HP (Max.)	7.60	6.0	4.70	4.14	3.60	2.84	2.40	1.97	.338
	Input HP (Max.)	8.09	6.34	5.00	4.40	3.83	3.02	2.55	2.10	.36
	OHL Output Shaft (1)	3450	3600	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	688	777	875	935	1000	1111	1191	1289	1289
70.6	Output RPM	51.0	35.4	24.8	20.2	16.6	12.3	10.2	8.21	1.42
	Output Torque, in-lb	9123	9506	10710	11410	11693	12070	12377	12551	12551
	Output HP (Max.)	7.38	5.3	4.21	3.67	3.07	2.36	2.00	1.64	.282
	Input HP (Max.)	7.85	5.68	4.48	3.90	3.27	2.51	2.13	1.74	.30
	OHL Output Shaft (1)	3600	3600	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	601	695	783	838	907	1019	1096	1194	1194
86.5	Output RPM	41.6	28.9	20.2	16.5	13.5	10.1	8.33	6.71	1.16
	Output Torque, in-lb	9179	10349	11726	11859	12524	12367	12524	12455	12808
	Output HP (Max.)	6.06	4.75	3.76	3.11	2.69	1.97	1.65	1.33	.235
	Input HP (Max.)	6.45	5.05	4.0	3.31	2.86	2.10	1.76	1.41	.25
	OHL Output Shaft (1)	3600	3600	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	635	718	800	875	939	1061	1142	1245	1245
105.9	Output RPM	34.0	23.6	16.5	13.5	11.0	8.22	6.80	5.48	.944
	Output Torque, in-lb	9794	11067	11867	11977	12494	12548	12722	12656	12548
	Output HP (Max.)	5.28	4.15	3.11	2.57	2.19	1.64	1.37	1.10	.188
	Input HP (Max.)	5.62	4.41	3.31	2.73	2.33	1.74	1.46	1.17	.20
	OHL Output Shaft (1)	3600	3600	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	656	741	843	912	979	1098	1179	1282	1282
129.7	Output RPM	27.8	19.3	13.5	11.0	9.02	6.71	5.55	4.47	.771
	Output Torque, in-lb	10160	11464	11987	12305	12281	12718	12913	12718	13063
	Output HP (Max.)	4.47	3.51	2.57	2.15	1.76	1.35	1.14	.90	.160
	Input HP (Max.)	4.76	3.73	2.73	2.29	1.87	1.44	1.21	.96	.17
	OHL Output Shaft (1)	3600	3600	3600	3600	3600	3600	3600	3600	3600
	OHL Input Shaft (1)	677	765	872	939	1014	1129	1210	1314	1314

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-92, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DODGE APG Reducer Ratings—Size 6

## Single Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
1.22	Output RPM	2951	2049	1434	1172	959	713	590	475	82.0
	Output Torque, in-lb	2407	2773	3229	3241	3291	3395	3454	3521	4175
	Output HP (Max.)	113	90.2	73.5	60.3	50.1	38.4	32.3	26.6	5.43
	Input HP (Max.)	115	92.0	75	61.5	51.1	39.2	33.0	27.1	5.54
	OHL Output Shaft (1)	1676	1700	1750	1935	2009	2140	2164	2209	2610
	OHL Input Shaft (1)	201	124	75	336	642	777	875	996	996
1.50	Output RPM	2400	1667	1167	953	780	580	480	387	66.7
	Output Torque, in-lb	2702	3094	3256	3311	3389	3472	3526	3594	4271
	Output HP (Max.)	103	81.8	60.3	50.1	41.9	31.9	26.9	22.1	4.52
	Input HP (Max.)	105	83.5	61.5	51.1	42.8	32.6	27.4	22.5	4.61
	OHL Output Shaft (1)	1735	1810	1964	2075	2114	2200	2214	2259	2669
	OHL Input Shaft (1)	177	128	529	636	719	863	964	1087	1087
1.84	Output RPM	1957	1359	951	777	636	473	391	315	54.3
	Output Torque, in-lb	2904	3191	3318	3401	3468	3540	3599	3664	4387
	Output HP (Max.)	90.2	68.8	50.1	41.9	35.0	26.6	22.3	18.3	3.78
	Input HP (Max.)	92.0	70.2	51.1	42.8	35.7	27.1	22.8	18.7	3.86
	OHL Output Shaft (1)	1826	2025	2083	2140	2163	2225	2275	2313	2732
	OHL Input Shaft (1)	116	270	589	666	753	902	1002	1127	1127
2.25	Output RPM	1600	1111	778	636	520	387	320	258	44.4
	Output Torque, in-lb	3088	3269	3399	3469	3504	3594	3667	3738	4447
	Output HP (Max.)	78.4	57.6	41.9	35.0	28.9	22.1	18.6	15.3	3.14
	Input HP (Max.)	80.0	58.8	42.8	35.7	29.5	22.5	19.0	15.6	3.20
	OHL Output Shaft (1)	1919	2060	2128	2165	2211	2273	2315	2364	2792
	OHL Input Shaft (1)	180	505	623	714	809	955	1053	1178	1178
2.76	Output RPM	1306	907	635	519	425	316	261	210	36.3
	Output Torque, in-lb	3201	3336	3473	3512	3535	3659	3735	3815	4562
	Output HP (Max.)	66.3	48.0	35.0	28.9	23.8	18.3	15.48	12.7	2.63
	Input HP (Max.)	67.7	49.0	35.7	29.5	24.3	18.7	15.8	13.0	2.68
	OHL Output Shaft (1)	2019	2110	2172	2225	2261	2323	2385	2414	2850
	OHL Input Shaft (1)	239	528	655	744	843	982	1080	1204	1204
3.38	Output RPM	1067	741	519	424	347	258	213	172	29.6
	Output Torque, in-lb	3283	3402	3568	3542	3670	3738	3822	3918	4565
	Output HP (Max.)	55.6	40.0	29.4	23.8	20.2	15.3	12.94	10.7	2.15
	Input HP (Max.)	56.7	40.8	30	24.3	20.6	15.6	13.2	10.9	2.19
	OHL Output Shaft (1)	2072	2145	2200	2265	2335	2371	2425	2463	2912
	OHL Input Shaft (1)	438	565	680	791	869	1022	1120	1241	1241
4.13	Output RPM	871	605	423	346	283	210	174	140	24.2
	Output Torque, in-lb	3348	3462	3546	3678	3666	3815	3901	4028	4647
	Output HP (Max.)	46.3	33.2	23.8	20.2	16.5	12.7	10.78	8.97	1.78
	Input HP (Max.)	47.2	33.9	24.3	20.6	16.8	13.0	11.0	9.15	1.82
	OHL Output Shaft (1)	2116	2191	2280	2307	2360	2422	2490	2515	2971
	OHL Input Shaft (1)	468	589	730	802	907	1045	1144	1260	1260
5.06	Output RPM	711	494	346	283	231	172	142	115	19.8
	Output Torque, in-lb	3403	3525	3679	3672	3766	3916	4019	4187	4594
	Output HP (Max.)	38.4	27.6	20.2	16.5	13.8	10.7	9.07	7.61	1.44
	Input HP (Max.)	39.2	28.2	20.6	16.8	14.1	10.9	9.26	7.77	1.47
	OHL Output Shaft (1)	2160	2265	2311	2360	2410	2470	2520	2564	3036
	OHL Input Shaft (1)	473	593	721	820	906	1044	1140	1249	1249

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.  
On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-92, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87

# DODGE APG Reducer Ratings—Size 6

## Double Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
4.13	Output RPM	872	605	424	346	283	211	174	140	24
	Output Torque, in-lb	8329	9296	10700	10991	11106	11460	11557	12063	13993
	Output HP (Max.)	115.20	89.28	72	60.38	49.92	38.30	31.97	26.88	5.38
	Input HP (Max.)	120.00	93.00	75	62.90	52.00	39.90	33.30	28.00	5.60
	OHL Output Shaft (1)	1630	1830	2000	2200	2450	2800	3000	3200	5500
	OHL Input Shaft (1)	5	68	75	200	575	760	865	960	960
5.06	Output RPM	711	494	346	283	231	172	142	115	20
	Output Torque, in-lb	9099	10409	11371	11839	12089	12422	12671	12879	15185
	Output HP (Max.)	102.72	81.60	62.40	53.09	44.35	33.89	28.61	23.42	4.76
	Input HP (Max.)	107.00	85.00	65.00	55.30	46.20	35.30	29.80	24.40	4.96
	OHL Output Shaft (1)	1700	1920	2200	2400	2600	2900	3180	3400	5500
	OHL Input Shaft (1)	90	34	217	395	650	790	880	1000	1000
6.20	Output RPM	581	403	282	231	189	140	116	93.5	16.1
	Output Torque, in-lb	11983	13805	16085	16133	16384	16902	17193	17527	20782
	Output HP (Max.)	110	88.3	72	59.0	49.1	37.6	31.7	26.0	5.32
	Input HP (Max.)	115	92.0	75	61.5	51.1	39.2	33.0	27.1	5.54
	OHL Output Shaft (1)	1530	1790	2000	2350	2550	2900	3150	3400	5500
	OHL Input Shaft (1)	201	124	75	336	642	777	875	996	996
7.59	Output RPM	474	329	231	188	154	115	94.9	76.4	13.2
	Output Torque, in-lb	13394	15338	16138	16410	16799	17208	17476	17815	21170
	Output HP (Max.)	101	80.2	59.0	49.1	41.1	31.3	26.3	21.6	4.43
	Input HP (Max.)	105	83.5	61.5	51.1	42.8	32.6	27.4	22.5	4.61
	OHL Output Shaft (1)	1600	1950	2350	2550	2600	3150	3400	3750	5500
	OHL Input Shaft (1)	177	128	529	636	719	863	964	1087	1087
9.30	Output RPM	387	269	188	154	126	93.5	77.4	62.4	10.8
	Output Torque, in-lb	14380	15800	16430	16841	17169	17527	17818	18142	21720
	Output HP (Max.)	88.3	67.4	49.1	41.1	34.3	26.0	21.9	18.0	3.71
	Input HP (Max.)	92.0	70.2	51.1	42.8	35.7	27.1	22.8	18.7	3.86
	OHL Output Shaft (1)	1800	2150	2550	2800	3000	3400	3650	4100	5500
	OHL Input Shaft (1)	116	270	589	666	753	902	1002	1127	1127
11.4	Output RPM	316	219	154	126	103	76.4	63.2	50.9	8.78
	Output Torque, in-lb	15314	16209	16854	17204	17376	17823	18186	18536	22052
	Output HP (Max.)	76.8	56.4	41.1	34.3	28.3	21.6	18.2	15.0	3.07
	Input HP (Max.)	80.0	58.8	42.8	35.7	29.5	22.5	19.0	15.6	3.20
	OHL Output Shaft (1)	2000	2400	2800	3000	3300	3750	4100	4400	5500
	OHL Input Shaft (1)	180	505	623	714	809	955	1053	1178	1178
14.0	Output RPM	258	179	125	103	83.9	62.4	51.6	41.6	7.17
	Output Torque, in-lb	15872	16543	17218	17412	17530	18142	18522	18918	22620
	Output HP (Max.)	65.0	47.0	34.3	28.3	23.3	18.0	15.17	12.5	2.57
	Input HP (Max.)	67.7	49.0	35.7	29.5	24.3	18.7	15.8	13.0	2.68
	OHL Output Shaft (1)	2200	2600	3000	3300	3650	4100	4450	4800	5500
	OHL Input Shaft (1)	239	528	655	744	843	982	1080	1204	1204
17.1	Output RPM	211	146	102	83.7	68.5	50.9	42.1	33.9	5.85
	Output Torque, in-lb	16286	16875	17790	17571	18206	18541	18957	19432	22645
	Output HP (Max.)	54.4	39.2	28.8	23.3	19.8	15.0	12.67	10.5	2.10
	Input HP (Max.)	56.7	40.8	30.0	24.3	20.6	15.6	13.2	10.9	2.19
	OHL Output Shaft (1)	2450	2850	3200	3600	3900	4500	4750	5250	5500
	OHL Input Shaft (1)	438	565	680	791	869	1022	1120	1241	1241
20.9	Output RPM	172	119	84	68.3	55.9	41.6	34.4	27.7	4.78
	Output Torque, in-lb	16603	17172	18000	18243	18183	18922	19347	19978	23048
	Output HP (Max.)	45.3	32.5	24	19.8	16.1	12.5	10.56	8.78	1.75
	Input HP (Max.)	47.2	33.9	25	20.6	16.8	13.0	11.0	9.15	1.82
	OHL Output Shaft (1)	2700	3100	3500	3900	4300	4800	5200	5500	5500
	OHL Input Shaft (1)	468	589	700	802	907	1045	1144	1260	1260
25.6	Output RPM	141	97.6	68	55.8	45.7	34.0	28.1	22.6	3.90
	Output Torque, in-lb	16879	17485	18675	18211	18681	19421	19936	20766	22787
	Output HP (Max.)	37.6	27.1	20.2	16.1	13.5	10.5	8.89	7.46	1.41
	Input HP (Max.)	39.2	28.2	21	16.8	14.1	10.9	9.26	7.77	1.47
	OHL Output Shaft (1)	2900	3400	3850	4300	4650	5250	5500	5500	5500
	OHL Input Shaft (1)	473	593	700	820	906	1044	1140	1249	1249

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.  
On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.



# DODGE APG Reducer Ratings—Size 6

## Triple Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT								
		3600	2500	1750	1430	1170	870	720	580	100
31.4	Output RPM	115	79.6	55.8	45.6	37.3	27.7	22.9	18.5	3.19
	Output Torque, in-lb	11421	13137	15058	16334	18247	19943	20611	20713	23432
	Output HP (Max.)	20.78	16.6	13.3	11.8	10.8	8.77	7.50	6.07	1.18
	Input HP (Max.)	22.1	17.7	14.2	12.6	11.5	9.33	7.98	6.46	1.26
	OHL Output Shaft (1)	3550	4000	4500	4800	5100	5500	5500	5500	5500
	OHL Input Shaft (1)	834	937	1049	1118	1178	1305	1403	1538	1538
38.4	Output RPM	93.7	65.0	45.5	37.2	30.4	22.6	18.7	15.1	2.60
	Output Torque, in-lb	12949	14894	17073	18521	19815	20758	20622	20967	23229
	Output HP (Max.)	19.24	15.4	12.3	10.9	9.57	7.45	6.13	5.02	.959
	Input HP (Max.)	20.5	16.4	13.1	11.6	10.2	7.93	6.52	5.34	1.02
	OHL Output Shaft (1)	3750	4250	4750	5050	5400	5500	5500	5500	5500
	OHL Input Shaft (1)	852	957	1073	1143	1222	1368	1483	1614	1614
47.1	Output RPM	76.5	53.1	37.2	30.4	24.9	18.5	15.3	12.3	2.12
	Output Torque, in-lb	13868	15943	18265	19856	20239	20710	20919	21352	23150
	Output HP (Max.)	16.83	13.4	10.8	9.57	7.98	6.07	5.08	4.17	.780
	Input HP (Max.)	17.9	14.3	11.5	10.2	8.49	6.46	5.40	4.44	.83
	OHL Output Shaft (1)	4100	4550	5100	5400	5500	5500	5500	5500	5500
	OHL Input Shaft (1)	880	989	1110	1183	1279	1434	1544	1675	1675
57.7	Output RPM	62.4	43.4	30.4	24.8	20.3	15.1	12.5	10.1	1.73
	Output Torque, in-lb	14440	16599	19480	20277	20638	20963	21441	22023	22883
	Output HP (Max.)	14.31	11.4	9.4	7.98	6.65	5.02	4.25	3.52	.630
	Input HP (Max.)	15.2	12.2	10.0	8.49	7.07	5.34	4.52	3.74	.67
	OHL Output Shaft (1)	4350	4900	5400	5500	5500	5500	5500	5500	5500
	OHL Input Shaft (1)	909	1023	1100	1229	1326	1485	1592	1722	1722
70.6	Output RPM	51.0	35.4	24.8	20.2	16.6	12.3	10.2	8.21	1.42
	Output Torque, in-lb	16584	19296	20297	20685	20633	22746	22081	22650	23011
	Output HP (Max.)	13.41	10.8	7.98	6.65	5.42	4.45	3.57	2.95	.517
	Input HP (Max.)	14.3	11.5	8.49	7.07	5.77	4.73	3.80	3.14	.55
	OHL Output Shaft (1)	4600	5150	5500	5500	5500	5500	5500	5500	5500
	OHL Input Shaft (1)	790	882	1018	1106	1208	1334	1458	1586	1586
86.5	Output RPM	41.6	28.9	20.2	16.5	13.5	10.1	8.33	6.71	1.16
	Output Torque, in-lb	18259	19838	20698	20923	21150	22025	22344	22790	24080
	Output HP (Max.)	12.06	9.10	6.65	5.49	4.54	3.52	2.95	2.43	.442
	Input HP (Max.)	12.8	9.68	7.07	5.84	4.83	3.74	3.14	2.58	.47
	OHL Output Shaft (1)	4850	5500	5500	5500	5500	5500	5500	5500	5500
	OHL Input Shaft (1)	818	935	1076	1168	1266	1416	1524	1655	1655
105.9	Output RPM	34.0	23.6	16.5	13.5	11.0	8.22	6.80	5.48	.944
	Output Torque, in-lb	19397	20453	21530	21191	21771	22644	22656	22932	23213
	Output HP (Max.)	10.46	7.66	5.64	4.54	3.82	2.95	2.44	1.99	.348
	Input HP (Max.)	11.1	8.15	6.0	4.83	4.06	3.14	2.60	2.12	.37
	OHL Output Shaft (1)	5200	5500	5500	5500	5500	5500	5500	5500	5500
	OHL Input Shaft (1)	852	979	1100	1219	1314	1466	1578	1712	1712
129.7	Output RPM	27.8	19.3	13.5	11.0	9.02	6.71	5.55	4.47	.771
	Output Torque, in-lb	19914	20408	21930	21816	21935	22787	22945	23052	23820
	Output HP (Max.)	8.77	6.24	4.7	3.82	3.14	2.43	2.02	1.64	.291
	Input HP (Max.)	9.33	6.64	5.0	4.06	3.34	2.58	2.15	1.74	.31
	OHL Output Shaft (1)	5500	5500	5500	5500	5500	5500	5500	5500	5500
	OHL Input Shaft (1)	888	1023	1100	1258	1358	1512	1623	1759	1759

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-92, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87

# DODGE APG Reducer Ratings—Size 7

## Single Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT							
		2500	1750	1430	1170	870	720	580	100
1.22	Output RPM	2049	1434	1172	959	713	590	475	82.0
	Output Torque, in-lb	5516	6027	6113	6209	6418	6520	6678	7799
	Output HP (Max.)	179	137	113.7	94.5	72.6	61.1	50.4	10.1
	Input HP (Max.)	183	140	116	96.4	74.1	62.3	51.4	10.4
	OHL Output Shaft (1)	2150	2150	2400	2537	2800	2954	3119	4048
	OHL Input Shaft (1)	131	580	794	923	1117	1261	1430	1730
1.50	Output RPM	1667	1167	953	780	580	480	387	66.7
	Output Torque, in-lb	5929	6586	6738	6881	7082	7206	7364	8579
	Output HP (Max.)	157	122	101.9	85.2	65.2	54.9	45.2	9.07
	Input HP (Max.)	160	125	104	86.9	66.5	56.0	46.1	9.26
	OHL Output Shaft (1)	2400	2400	2600	2765	3000	3175	3341	4129
	OHL Input Shaft (1)	227	460	782	903	1103	1244	1416	1416
1.84	Output RPM	1359	951	777	636	473	391	315	54.3
	Output Torque, in-lb	6273	7014	7327	7547	7733	7861	8014	9376
	Output HP (Max.)	135	106	90.4	76.1	58.0	48.8	40.1	8.08
	Input HP (Max.)	138	108	92.2	77.7	59.2	49.8	40.9	8.25
	OHL Output Shaft (1)	2620	2711	2900	2969	3228	3340	3504	4209
	OHL Input Shaft (1)	288	389	636	868	1074	1216	1391	1391
2.25	Output RPM	1111	778	636	520	387	320	258	44.4
	Output Torque, in-lb	6671	7520	7794	7863	8051	8184	8338	9603
	Output HP (Max.)	118	92.8	78.6	64.9	49.4	41.6	34.1	6.77
	Input HP (Max.)	120	94.7	80.2	66.2	50.4	42.4	34.8	6.91
	OHL Output Shaft (1)	2800	2899	3000	3189	3389	3631	3631	4298
	OHL Input Shaft (1)	438	485	792	930	1138	1281	1458	1458
2.76	Output RPM	907	635	519	425	316	261	210	36.3
	Output Torque, in-lb	6809	7801	7880	7915	8179	8322	8482	9584
	Output HP (Max.)	98	78.6	64.9	53.3	41.0	34.5	28.3	5.52
	Input HP (Max.)	100	80.2	66.2	54.4	41.8	35.2	28.9	5.83
	OHL Output Shaft (1)	2900	3058	3189	3384	3572	3725	3713	4402
	OHL Input Shaft (1)	630	563	843	987	1184	1327	1504	1504
3.38	Output RPM	741	519	424	347	258	213	172	29.6
	Output Torque, in-lb	7504	7886	7930	8196	8338	8483	8734	9589
	Output HP (Max.)	88.2	64.9	53.3	45.1	34.1	28.7	23.8	4.51
	Input HP (Max.)	90.0	66.2	54.4	46.0	34.8	29.3	24.3	4.60
	OHL Output Shaft (1)	3023	3243	3450	3600	3649	3750	3793	4506
	OHL Input Shaft (1)	429	795	929	1038	1257	1402	1567	1567
4.13	Output RPM	605	423	346	283	210	174	140	24.2
	Output Torque, in-lb	7772	7937	8214	8184	8482	8688	8937	9703
	Output HP (Max.)	74.6	53.3	45.1	36.8	28.3	24.0	19.9	3.72
	Input HP (Max.)	76.1	54.4	46.0	37.5	28.9	24.5	20.3	3.80
	OHL Output Shaft (1)	3192	3500	3552	3650	3731	3800	3875	4604
	OHL Input Shaft (1)	547	851	952	1107	1304	1440	1607	1607
5.06	Output RPM	494	346	283	231	172	142	115	19.8
	Output Torque, in-lb	7901	8215	8196	8388	8729	8898	9268	9657
	Output HP (Max.)	61.9	45.1	36.8	30.8	23.8	20.1	16.9	3.03
	Input HP (Max.)	63.2	46.0	37.5	31.4	24.3	20.5	17.2	3.09
	OHL Output Shaft (1)	3450	3591	3638	3725	3809	3875	3953	4709
	OHL Input Shaft (1)	586	839	984	1106	1298	1441	1591	1591

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.  
On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-97, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DODGE APG Reducer Ratings—Size 7

## Double Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT							
		2500	1750	1430	1170	870	720	580	100
4.13	Output RPM	605	424	346	283	211	174	140	24
	Output Torque, in-lb	18491	20419	20794	21080	21743	21899	22920	26737
	Output HP (Max.)	177.60	137.28	114.24	94.75	72.67	60.58	51.07	10.27
	Input HP (Max.)	185.00	143.00	119.00	98.70	75.70	63.10	53.20	10.70
	OHL Output Shaft (1)	2400	2750	2900	3200	3750	4000	4200	8550
	OHL Input Shaft (1)	43	225	700	890	1085	1240	1375	1375
5.06	Output RPM	494	346	283	231	172	142	115	20
	Output Torque, in-lb	19961	22568	22694	23315	23964	24364	25125	29399
	Output HP (Max.)	156.48	123.84	101.76	85.54	65.38	55.01	45.70	9.22
	Input HP (Max.)	163.00	129.00	106.00	89.10	68.10	57.30	47.60	9.60
	OHL Output Shaft (1)	2550	2850	3200	3400	3900	4160	4550	8730
	OHL Input Shaft (1)	78	53	640	865	1065	1210	1365	1365
6.20	Output RPM	403	282	231	189	140	116	93.5	16.1
	Output Torque, in-lb	27459	30000	30430	30908	31950	32459	33244	38825
	Output HP (Max.)	176	134	111.4	92.5	71.1	59.8	49.3	9.94
	Input HP (Max.)	183	140	116	96.4	74.1	62.3	51.4	10.4
	OHL Output Shaft (1)	2150	2750	3000	3250	3850	4250	4650	8730
	OHL Input Shaft (1)	131	580	794	923	1117	1261	1430	1430
7.59	Output RPM	329	231	188	154	115	94.9	76.4	13.2
	Output Torque, in-lb	29390	34730	33398	34108	35102	35718	36500	42524
	Output HP (Max.)	154	120	99.8	83.4	63.8	53.8	44.3	8.89
	Input HP (Max.)	160	125	104	86.9	66.5	56.0	46.1	9.26
	OHL Output Shaft (1)	2250	2700	3100	3500	4200	4450	4850	8730
	OHL Input Shaft (1)	227	460	782	903	1103	1244	1416	1416
9.30	Output RPM	269	188	154	126	93.5	77.4	62.4	10.8
	Output Torque, in-lb	31060	34726	36280	37368	38289	38919	39679	46422
	Output HP (Max.)	132	104	88.5	74.6	56.8	47.8	39.3	7.92
	Input HP (Max.)	138	108	92.2	77.7	59.2	49.8	40.9	8.25
	OHL Output Shaft (1)	2750	3000	3350	3750	4350	4750	5200	8730
	OHL Input Shaft (1)	288	389	636	868	1074	1216	1391	1391
11.4	Output RPM	219	154	126	103	76.4	63.2	50.9	8.78
	Output Torque, in-lb	33079	37292	38650	38992	39923	40583	41348	47620
	Output HP (Max.)	115	90.9	77.0	63.6	48.4	40.7	33.4	6.63
	Input HP (Max.)	120	94.7	80.2	66.2	50.4	42.4	34.8	6.91
	OHL Output Shaft (1)	2950	3250	3700	4100	4650	5100	5550	8730
	OHL Input Shaft (1)	438	485	792	930	1138	1281	1458	1458
14.0	Output RPM	179	125	103	83.9	62.4	51.6	41.6	7.17
	Output Torque, in-lb	33761	38681	39073	39244	40552	41264	42056	47519
	Output HP (Max.)	96	77.0	63.6	52.2	40.1	33.8	27.7	5.40
	Input HP (Max.)	100	80.2	66.2	54.4	41.8	35.2	28.9	5.63
	OHL Output Shaft (1)	3200	3700	4100	4500	5150	5550	6100	8730
	OHL Input Shaft (1)	630	563	843	987	1184	1327	1504	1504
17.1	Output RPM	146	102	83.7	68.5	50.9	42.1	33.9	5.85
	Output Torque, in-lb	37224	39115	39336	40654	41361	42079	43322	47565
	Output HP (Max.)	86.4	63.6	52.2	44.2	33.4	28.1	23.3	4.42
	Input HP (Max.)	90.0	66.2	54.4	46.0	34.8	29.3	24.3	4.60
	OHL Output Shaft (1)	3400	4100	4500	4900	5550	6000	6600	8730
	OHL Input Shaft (1)	429	795	929	1038	1257	1402	1567	1567
20.9	Output RPM	119	84	68.3	55.9	41.6	34.4	27.7	4.78
	Output Torque, in-lb	38548	40275	40736	40588	42066	43091	44322	48121
	Output HP (Max.)	73.1	53.7	44.2	36.0	27.7	23.5	19.5	3.65
	Input HP (Max.)	76.1	56	46.0	37.5	28.9	24.5	20.3	3.80
	OHL Output Shaft (1)	3800	4400	4900	5400	6100	6550	7050	8730
	OHL Input Shaft (1)	547	825	952	1107	1304	1440	1607	1607
25.6	Output RPM	97.6	68	55.8	45.7	34.0	28.1	22.6	3.90
	Output Torque, in-lb	39187	40746	40650	41601	43296	44135	45969	47898
	Output HP (Max.)	60.7	44.2	36.0	30.1	23.3	19.7	16.5	2.97
	Input HP (Max.)	63.2	46.0	37.5	31.4	24.3	20.5	17.2	3.09
	OHL Output Shaft (1)	4200	4900	5400	5900	6600	7000	7650	8730
	OHL Input Shaft (1)	586	839	984	1106	1298	1441	1591	1591

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

# DODGE APG Reducer Ratings—Size 7

## Triple Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT							
		2500	1750	1430	1170	870	720	580	100
31.4	Output RPM	79.6	55.8	45.6	37.3	27.7	22.9	18.5	3.19
	Output Torque, in-lb	28430	30286	31939	33696	35911	37710	39886	49095
	Output HP (Max.)	35.9	26.8	23.1	19.9	15.8	13.7	11.7	2.48
	Input HP (Max.)	38.2	28.5	24.6	21.2	16.8	14.6	12.4	2.64
	OHL Output Shaft (1)	5250	6000	6450	6900	7600	8200	8730	8730
	OHL Input Shaft (1)	1328	1524	1639	1759	1962	2101	2269	2269
38.4	Output RPM	65.0	45.5	37.2	30.4	22.6	18.7	15.1	2.60
	Output Torque, in-lb	30106	32598	34510	36204	38741	40486	42405	48735
	Output HP (Max.)	31.1	23.5	20.4	17.5	13.9	12.0	10.2	2.01
	Input HP (Max.)	33.1	25.1	21.7	18.6	14.8	12.8	10.8	2.14
	OHL Output Shaft (1)	5600	6400	6850	7400	8150	8730	8730	8730
	OHL Input Shaft (1)	1393	1587	1702	1830	2036	2179	2357	2357
47.1	Output RPM	53.1	37.2	30.4	24.9	18.5	15.3	12.3	2.12
	Output Torque, in-lb	32076	35192	36884	38381	41357	43000	45829	48253
	Output HP (Max.)	27.0	20.8	17.8	15.1	12.1	10.4	8.96	1.63
	Input HP (Max.)	28.8	22.1	18.9	16.1	12.9	11.1	9.53	1.73
	OHL Output Shaft (1)	6050	6800	7300	7900	8730	8730	8730	8730
	OHL Input Shaft (1)	1446	1640	1762	1897	2103	2252	2425	2425
57.7	Output RPM	43.4	30.4	24.8	20.3	15.1	12.5	10.1	1.73
	Output Torque, in-lb	34168	38960	39002	40284	43968	46535	49111	47815
	Output HP (Max.)	23.5	18.8	15.4	13.0	10.5	9.22	7.84	1.32
	Input HP (Max.)	25.0	20.0	16.3	13.8	11.2	9.81	8.34	1.40
	OHL Output Shaft (1)	6500	7200	7800	8500	8730	8730	8730	8730
	OHL Input Shaft (1)	1493	1600	1819	1958	2165	2309	2489	2489
70.6	Output RPM	35.4	24.8	20.2	16.6	12.3	10.2	8.21	1.42
	Output Torque, in-lb	33972	36937	38181	40407	44146	47184	48835	46858
	Output HP (Max.)	19.1	14.5	12.3	10.6	8.63	7.63	6.36	1.05
	Input HP (Max.)	20.3	15.5	13.1	11.3	9.18	8.12	6.77	1.12
	OHL Output Shaft (1)	7000	7950	8600	8730	8730	8730	8730	8730
	OHL Input Shaft (1)	1338	1525	1650	1769	1960	2085	2267	2267
86.5	Output RPM	28.9	20.2	16.5	13.5	10.1	8.33	6.71	1.16
	Output Torque, in-lb	36355	38967	41739	43746	48113	48814	48849	50721
	Output HP (Max.)	16.7	12.5	11.0	9.39	7.68	6.45	5.20	.931
	Input HP (Max.)	17.7	13.3	11.7	9.99	8.17	6.86	5.53	.99
	OHL Output Shaft (1)	7450	8550	8730	8730	8730	8730	8730	8730
	OHL Input Shaft (1)	1397	1596	1706	1834	2027	2186	2390	2390
105.9	Output RPM	23.6	16.5	13.5	11.0	8.22	6.80	5.48	.944
	Output Torque, in-lb	38823	42555	44575	47564	47883	48884	49109	48309
	Output HP (Max.)	14.5	11.2	9.55	8.34	6.24	5.27	4.27	.724
	Input HP (Max.)	15.5	11.9	10.2	8.87	6.64	5.61	4.54	.77
	OHL Output Shaft (1)	8050	8730	8730	8730	8730	8730	8730	8730
	OHL Input Shaft (1)	1449	1643	1766	1889	2128	2286	2488	2488
129.7	Output RPM	19.3	13.5	11.0	9.02	6.71	5.55	4.47	.771
	Output Torque, in-lb	41401	45401	48790	48796	47870	49412	49150	49177
	Output HP (Max.)	12.7	9.72	8.54	6.98	5.09	4.35	3.49	.602
	Input HP (Max.)	13.5	10.3	9.08	7.43	5.42	4.63	3.71	.64
	OHL Output Shaft (1)	8600	8730	8730	8730	8730	8730	8730	8730
	OHL Input Shaft (1)	1496	1694	1810	1960	2208	2364	2570	2570

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.  
On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-96, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOPS G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DODGE APG Reducer Ratings—Size 8

## Single Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT							
		2500	1750	1430	1170	870	720	580	100
1.22	Output RPM	2049	1434	1172	959	713	590	475	82.0
	Output Torque, in-lb	9645	9903	11435	11722	12126	12245	12602	14769
	Output HP (Max.)	314	225	213	178	137	115	95.1	19.2
	Input HP (Max.)	320	230	217	182	140	117	97.0	19.6
	OHL Output Shaft (1)	2500	2900	2556	2557	2900	3134	3421	5087
	OHL Input Shaft (1)	1208	1478	999	1106	1289	1482	1610	1610
1.50	Output RPM	1667	1167	953	780	580	480	387	66.7
	Output Torque, in-lb	10710	11965	12504	12749	13098	13382	13625	15843
	Output HP (Max.)	283	221	189	158	121	102	83.6	16.8
	Input HP (Max.)	289	226	193	161	123	104	85.3	17.1
	OHL Output Shaft (1)	2700	2630	2700	2851	3300	3499	3806	5189
	OHL Input Shaft (1)	1236	1104	1113	1251	1477	1606	1799	1799
1.84	Output RPM	1359	951	777	636	473	391	315	54.3
	Output Torque, in-lb	11910	13630	13669	13987	14238	14569	14833	17388
	Output HP (Max.)	257	206	169	141	107	90.5	74.2	15.0
	Input HP (Max.)	262	210	172	144	109	92.3	75.7	15.3
	OHL Output Shaft (1)	3000	2650	3100	3286	3670	3900	4144	5288
	OHL Input Shaft (1)	1023	800	957	1072	1345	1463	1654	1654
2.25	Output RPM	1111	778	636	520	387	320	258	44.4
	Output Torque, in-lb	12785	14135	14674	14728	15255	15518	15838	18483
	Output HP (Max.)	225	174	148	122	93.6	78.8	64.8	13.0
	Input HP (Max.)	230	178	151	124	95.5	80.4	66.1	13.3
	OHL Output Shaft (1)	3200	3255	3400	3610	3959	4200	4467	5395
	OHL Input Shaft (1)	1047	947	984	1205	1384	1537	1715	1715
2.76	Output RPM	907	635	519	425	316	261	210	36.3
	Output Torque, in-lb	13482	14584	14999	15276	15907	16218	16523	19065
	Output HP (Max.)	194	147	123	103	79.7	67.2	55.2	11.0
	Input HP (Max.)	198	150	126	105	81.3	68.6	56.3	11.2
	OHL Output Shaft (1)	3400	3500	3800	3918	4257	4500	4642	5924
	OHL Input Shaft (1)	977	950	1070	1213	1363	1502	1690	1690
3.38	Output RPM	741	519	424	347	258	213	172	29.6
	Output Torque, in-lb	13925	15009	15306	16142	16461	16734	17216	19136
	Output HP (Max.)	164	123	103	88.8	67.3	56.6	46.9	9.00
	Input HP (Max.)	167	126	105	90.6	68.7	57.8	47.9	9.18
	OHL Output Shaft (1)	3682	3962	4100	4400	4660	4900	4735	5630
	OHL Input Shaft (1)	1157	1194	1330	1298	1565	1724	1862	1862
4.13	Output RPM	605	423	346	283	210	174	140	24.2
	Output Torque, in-lb	14401	15320	16177	16128	16758	17164	17653	19380
	Output HP (Max.)	138	103	88.8	72.4	56.0	47.4	39.3	7.44
	Input HP (Max.)	141	105	90.6	73.9	57.1	48.4	40.1	7.59
	OHL Output Shaft (1)	4044	3900	4438	4575	4659	4780	4838	5753
	OHL Input Shaft (1)	1235	1340	1308	1563	1739	1862	2005	2005
5.06	Output RPM	494	346	283	231	172	142	115	19.8
	Output Torque, in-lb	14126	15234	15714	16107	16632	16929	17243	19283
	Output HP (Max.)	111	83.6	70.5	59.1	45.4	38.2	31.4	6.05
	Input HP (Max.)	113	85.3	71.9	60.3	46.3	39.0	32.0	6.17
	OHL Output Shaft (1)	4375	4467	4553	4675	4770	4850	4959	5888
	OHL Input Shaft (1)	1414	1470	1557	1678	1890	2048	2247	2247

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.  
On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

# DODGE APG Reducer Ratings—Size 8

## Double Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT							
		2500	1750	1430	1170	870	720	580	100
6.20	Output RPM	403	282	231	189	140	116	93.5	16.1
	Output Torque, in-lb	48016	49302	56925	58353	60365	60958	62736	73524
	Output HP (Max.)	307	221	208	175	134	112	93.1	18.8
	Input HP (Max.)	320	230	217	182	140	117	97.0	19.6
	OHL Output Shaft (1)	5800	6400	6100	6300	7000	7500	8000	12000
	OHL Input Shaft (1)	1208	1478	999	1106	1289	1482	1610	1610
7.59	Output RPM	329	231	188	154	115	94.9	76.4	13.2
	Output Torque, in-lb	53086	59306	61979	63193	64925	66333	67538	78528
	Output HP (Max.)	277	217	185	155	118	99.8	81.9	16.4
	Input HP (Max.)	289	226	193	161	123	104	85.3	17.1
	OHL Output Shaft (1)	5700	5800	6000	6400	7000	7700	8200	12000
	OHL Input Shaft (1)	1236	1104	1113	1251	1477	1606	1799	1799
9.30	Output RPM	269	188	154	126	93.5	77.4	62.4	10.8
	Output Torque, in-lb	58970	67356	67680	69254	70498	72133	73440	86091
	Output HP (Max.)	252	201	165	138	105	88.6	72.7	14.7
	Input HP (Max.)	262	210	172	144	109	92.3	75.7	15.3
	OHL Output Shaft (1)	5300	5500	5900	6300	7300	7700	8400	12000
	OHL Input Shaft (1)	1023	800	957	1072	1345	1463	1654	1654
11.4	Output RPM	219	154	126	103	76.4	63.2	50.9	8.78
	Output Torque, in-lb	63401	70095	72769	73037	75647	76954	78538	91656
	Output HP (Max.)	221	171	145	119	91.7	77.2	63.5	12.8
	Input HP (Max.)	230	178	151	124	95.5	80.4	66.1	13.3
	OHL Output Shaft (1)	5700	5700	6000	6400	7300	7800	8500	12000
	OHL Input Shaft (1)	1047	947	984	1205	1384	1537	1715	1715
14.0	Output RPM	179	125	103	83.9	62.4	51.6	41.6	7.17
	Output Torque, in-lb	66847	72576	74369	75746	78873	80417	81929	94531
	Output HP (Max.)	190	144	121	101	78.0	65.9	54.0	10.8
	Input HP (Max.)	198	150	126	105	81.3	68.6	56.3	11.2
	OHL Output Shaft (1)	5600	6000	6400	7000	7600	8300	9000	12000
	OHL Input Shaft (1)	977	950	1070	1213	1363	1502	1690	1690
17.1	Output RPM	146	102	83.7	68.5	50.9	42.1	33.9	5.85
	Output Torque, in-lb	69072	74449	75924	80070	81651	83008	85395	94922
	Output HP (Max.)	160	121	101	87.0	66.0	55.5	46.0	8.81
	Input HP (Max.)	167	126	105	90.6	68.7	57.8	47.9	9.18
	OHL Output Shaft (1)	6000	6400	7000	7100	8200	8000	9700	12000
	OHL Input Shaft (1)	1157	1194	1330	1298	1565	1724	1862	1862
20.9	Output RPM	119	84	68.3	55.9	41.6	34.4	27.7	4.78
	Output Torque, in-lb	71422	75981	80232	79986	83113	85127	87553	96116
	Output HP (Max.)	135	101	87.0	70.9	54.8	46.5	38.5	7.29
	Input HP (Max.)	141	105	90.6	73.9	57.1	48.4	40.1	7.59
	OHL Output Shaft (1)	6500	7000	7200	8000	9000	9700	10500	12000
	OHL Input Shaft (1)	1235	1340	1308	1563	1739	1862	2005	2005
25.6	Output RPM	97.6	68	55.8	45.7	34.0	28.1	22.6	3.90
	Output Torque, in-lb	70065	75557	77939	79890	82494	83964	85523	95642
	Output HP (Max.)	108	81.9	69.0	57.9	44.4	37.4	30.7	5.92
	Input HP (Max.)	113	85.3	71.9	60.3	46.3	39.0	32.0	6.17
	OHL Output Shaft (1)	7000	7800	8200	8700	10100	11000	12200	12000
	OHL Input Shaft (1)	1414	1470	1557	1678	1890	2048	2247	2247

NOTE: Shaded ratings are thermally limited. See page G9-104 for thermal capabilities.

- (1) At one shaft diameter from the shaft shoulder. Measured in lbs.  
On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
DIMENSIONS G9-96, G9-102	PRICING G9-112
INSTALLATION MAINTENANCE G9-108	BACKSTOP G9-109
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DGE APG Reducer Ratings—Size 8

## Triple Reduction — C-Face and Separates

Ratio	Rating Data	RPM INPUT							
		2500	1750	1430	1170	870	720	580	100
31.4	Output RPM	79.6	55.8	45.6	37.3	27.7	22.9	18.5	3.19
	Output Torque, in-lb	55120	59430	61382	63419	66691	69737	73745	100421
	Output HP (Max.)	69.7	52.6	44.4	37.5	29.3	25.4	21.6	5.08
	Input HP (Max.)	74.1	56	47.2	39.9	31.2	27.0	23.0	5.40
	OHL Output Shaft (1)	9400	10000	10800	11700	12000	12000	12000	12000
	OHL Input Shaft (1)	2506	2500	2639	2689	2764	2811	2865	2865
38.4	Output RPM	65.0	45.5	37.2	30.4	22.6	18.7	15.1	2.60
	Output Torque, in-lb	61305	65717	68479	70655	74340	77808	82062	95647
	Output HP (Max.)	63.3	47.5	40.4	34.1	26.7	23.1	19.6	3.95
	Input HP (Max.)	67.3	50.5	43.0	36.3	28.4	24.6	20.9	4.20
	OHL Output Shaft (1)	9400	10300	11200	11950	12000	12000	12000	12000
	OHL Input Shaft (1)	2516	2601	2650	2700	2776	2823	2879	2879
47.1	Output RPM	53.1	37.2	30.4	24.9	18.5	15.3	12.3	2.12
	Output Torque, in-lb	66940	71722	74703	77001	81111	84838	89446	94553
	Output HP (Max.)	56.4	42.3	36.0	30.4	23.8	20.6	17.5	3.19
	Input HP (Max.)	60.0	45.0	38.3	32.3	25.3	21.9	18.6	3.39
	OHL Output Shaft (1)	9500	10700	11500	12000	12000	12000	12000	12000
	OHL Input Shaft (1)	2527	2613	2662	2713	2789	2838	2893	2893
57.7	Output RPM	43.4	30.4	24.8	20.3	15.1	12.5	10.1	1.73
	Output Torque, in-lb	71040	78066	79294	80568	82440	84436	85974	93582
	Output HP (Max.)	48.9	37.6	31.2	25.9	19.7	16.7	13.7	2.58
	Input HP (Max.)	52.0	40.0	33.2	27.6	21.0	17.8	14.6	2.74
	OHL Output Shaft (1)	10000	11200	12000	12000	12000	12000	12000	12000
	OHL Input Shaft (1)	2539	2623	2675	2728	2808	2859	2919	2919
70.6	Output RPM	35.4	24.8	20.2	16.6	12.3	10.2	8.21	1.42
	Output Torque, in-lb	67442	72917	75191	79027	85599	89486	94426	94972
	Output HP (Max.)	37.9	28.7	24.2	20.8	16.7	14.5	12.3	2.13
	Input HP (Max.)	40.3	30.5	25.7	22.1	17.8	15.4	13.1	2.27
	OHL Output Shaft (1)	11500	12000	12000	12000	12000	12000	12000	12000
	OHL Input Shaft (1)	2506	2589	2638	2686	2757	2804	2858	2858
86.5	Output RPM	28.9	20.2	16.5	13.5	10.1	8.33	6.71	1.16
	Output Torque, in-lb	74596	82020	83479	87579	94223	98910	95401	99394
	Output HP (Max.)	34.2	26.3	21.9	18.8	15.0	13.1	10.2	1.82
	Input HP (Max.)	36.4	28	23.3	20.0	16.0	13.9	10.8	1.94
	OHL Output Shaft (1)	11800	12000	12000	12000	12000	12000	12000	12000
	OHL Input Shaft (1)	2517	2500	2650	2699	2771	2818	2885	2885
105.9	Output RPM	23.6	16.5	13.5	11.0	8.22	6.80	5.48	.944
	Output Torque, in-lb	80808	87476	90379	93304	100238	95851	103735	95990
	Output HP (Max.)	30.3	22.9	19.4	16.4	13.1	10.3	9.01	1.44
	Input HP (Max.)	32.2	24.4	20.6	17.4	13.9	11.0	9.59	1.53
	OHL Output Shaft (1)	12000	12000	12000	12000	12000	12000	12000	12000
	OHL Input Shaft (1)	2528	2613	2663	2714	2788	2846	2900	2900
129.7	Output RPM	19.3	13.5	11.0	9.02	6.71	5.55	4.47	.771
	Output Torque, in-lb	82064	86059	90272	88003	90970	92313	94061	95280
	Output HP (Max.)	25.1	18.4	15.8	12.6	9.68	8.13	6.67	1.17
	Input HP (Max.)	26.7	19.6	16.8	13.4	10.3	8.65	7.10	1.24
	OHL Output Shaft (1)	12000	12000	12000	12000	12000	12000	12000	12000
	OHL Input Shaft (1)	2544	2632	2681	2737	2816	2869	2929	2929

(1) At one shaft diameter from the shaft shoulder. Measured in lbs.

On C-Face Reducers using motor frame size 320 and larger, the maximum input rpm is 2500.

DOI: 10.1002/for

### Weights—C-Face Reducers Foot Mount

\*All weights in lbs.

HP	SIZE											
	3			4			5			6		
	S	D	T	S	D	T	S	D	T	S	D	T
1/3			80									
1/2			80			100						
3/4			80			100			178			
1	52	73	80			100			178			
1 1/2	52	73	80			100			178			266
2	52	73	80			100			178			266
3	63	84		71	102	111	117	173	190			278
5	63	84		71	103		117	173	190			278
7 1/2	63	84		71	102		117	173	190	161	256	278
10	63	84		71	102		117	173		161	256	278
15				71	103		121	177		164	260	282
20				71	103		121	177		164	260	
25							134	190		177	273	
30							134	190		177	273	
40										212	308	
50										212	308	
60										213	308	
75										213	308	

\*All weights in lbs.

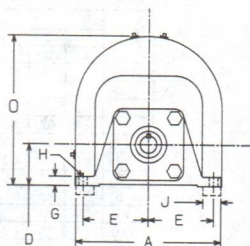
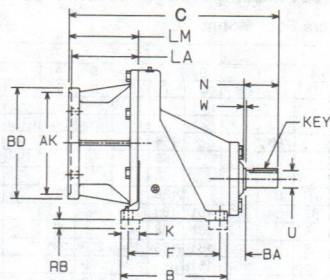
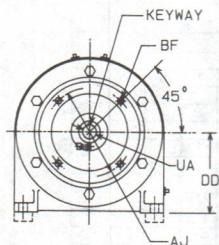
SIZE																	
3			4			5			6			7			8		
S	D	T	S	D	T	S	D	T	S	D	T	S	D	T	S	D	T
41	59	66	48	72	80	94	142	160	143	218	240	340	479	530	420	724	790

\*All weights in lbs.

**G9-87**



# DGE APG Dimensions—Sizes 3 & 4



Single Reduction C-Face Reducer\*

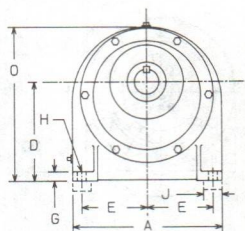
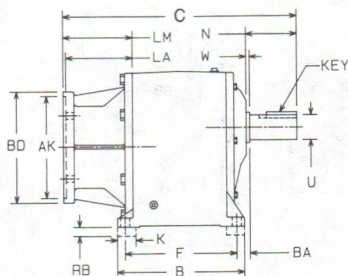
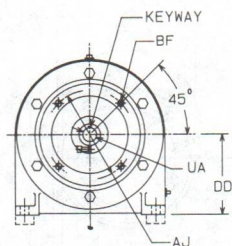
Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	N	O	W	AJ			
3	Single	56C	8.25	6.62	12.92	2.51	3.56	5.62	0.63	0.44	1.56	1.38	2.63	8.50	0.12	5.88			
		140TC			14.70									8.88		7.25			
		180TC																	
		210TC																	
4	Single	140TC	8.25	7.62	13.63	2.55	3.50	6.50	0.63	0.56	1.75	1.69	2.63	8.94	0.12	5.88			
		180TC			15.38											7.25			
		210TC																	
		250TC																	
Size	Red.	Frame Size	AK	BA	BD	BF	No. of Holes	DD	LA	LM	RB†	UA	K.W. Sq.	U		Key			
														Min.	Max.	Square	Length		
3	Single	56C	4.50	1.62	6.50	0.41	4	4.38	~	3.63	NR	0.620	0.188	1.124	1.125	0.250	1.75		
		140TC	9.00		0.53	0.875													
		180TC	8.50									0.50						1.125	0.250
		210TC				1.25						1.375						0.313	
4	Single	140TC	4.50	1.69	6.50	0.41	4	4.82	~	3.63	NR	0.875	0.188	1.124	1.125	0.250	1.75		
		180TC	9.00		0.53	1.125						0.250							
		210TC	8.50									0.88						1.375	0.313
		250TC				2.44						1.625						0.375	

\* All dimensions in inches.

† Height of riser block that comes standard with the gearbox.

NR indicates that riser block is not required.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-61, G9-98	PRICING G9-112
C-FACE MOTOR DIMENSIONS G9-98	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



**Double, Triple Reduction C-Face Reducer\***

Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	N	O	W	AJ		
3	Double	56C	8.38	8.00	13.70	5.37	3.56	7.00	0.63	0.44	1.50	1.38	2.63	8.75	0.12	5.88		
		140TC			15.48									8.89		7.25		
		180TC																
		210TC																
	Tpi.	56C	8.38	8.00	14.39	5.37	3.56	7.00	0.63	0.44	1.50	1.38	2.63	8.75	0.12	5.88		
4	Double	140TC	8.25	9.00	15.05	6.17	3.50	7.88	0.63	0.56	1.75	1.69	3.39	10.03	0.13	5.88		
		180TC			16.82											7.25		
		210TC																
		250TC																
	Trip.	56C	8.25	9.00	15.80	6.17	3.50	7.88	0.63	0.56	1.75	1.69	3.39	10.03	0.13	5.88		
		140TC			17.57											7.25		
		180TC																
Size	Red.	Frame Size	AK	BA	BD	BF	No. of Holes	DD	LA	LM	RB†	UA	K.W. Sq.	U		Key		
														Min.	Max.	Square	Length	
3	Double	56C	4.50	1.07	6.50	0.41	4	4.39	~	3.63	NR	0.620	0.188	1.249	1.250	0.25	1.75	
		140TC							0.875									
		180TC			8.50	9.00			0.53	5.19	5.41	0.50	1.125					0.250
		210TC							1.25	1.375	0.313							
	Tpi.	56C	4.50	1.07	6.50	0.41	4	4.39	~	3.63	NR	0.625	0.188	1.249	1.250	0.25	1.75	
		140TC									0.875							
4	Double	140TC	4.50	0.98	6.50	0.41	4	4.82	~	3.63	NR	0.875	0.188	1.624	1.625	0.375	2.75	
		180TC			8.50	9.00			0.53	5.19	5.41	1.125	0.250					
		210TC							0.88	1.375	0.313							
		250TC							2.44	1.625	0.375							
	Trip.	56C	4.50	0.98	6.50	0.41	4	4.82	~	3.63	NR	0.625	0.188	1.624	1.625	0.375	2.75	
		140TC									0.875							
		180TC	8.50		9.00	0.53			5.19	5.41		1.125	0.250					
3	Double	140TC	4.50	1.07	6.50	0.41	4	4.39	~	3.63	NR	0.875	0.188	1.624	1.625	0.375	2.75	
		180TC			8.50	9.00			0.53	5.19	5.41	0.88	1.375					0.313
		210TC										2.44	1.625					0.375
		250TC																
	Trip.	56C	4.50	0.98	6.50	0.41	4	4.82	~	3.63	NR	0.625	0.188	1.624	1.625	0.375	2.75	
		140TC									0.875							
		180TC	8.50		9.00	0.53			5.19	5.41		1.125	0.250					

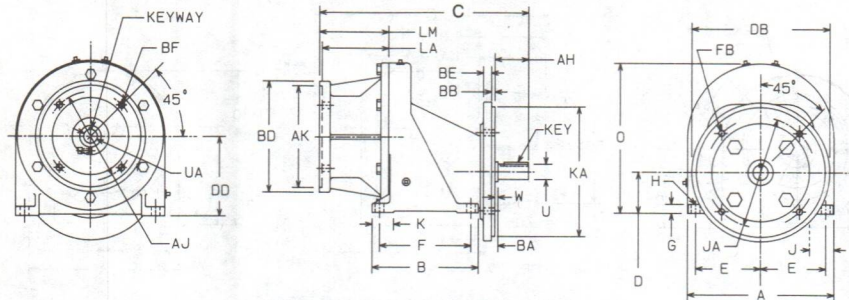
\* All dimensions in inches.

† Height of riser block that comes standard with the gearbox.

NR indicates that riser block is not required.



# DODGE APG Dimensions—Sizes 3 & 4



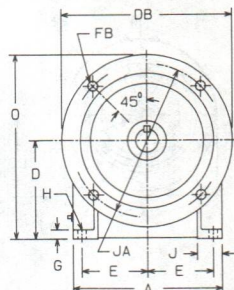
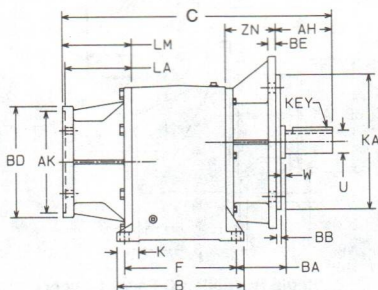
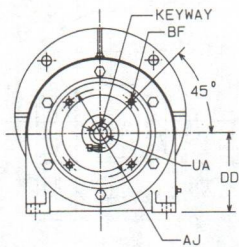
Single Reduction C-Face Reducer\*  
(Flange Mount)

Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	O	W▲	AH	AJ	AK	BA	BD										
3	Single	56C	8.25	6.62	12.92	2.51	3.56	5.62	0.63	0.44	1.56	1.38	8.50	0.12	2.63	5.88	4.5	1.62	6.50										
		140TC			14.70								8.88																
		180TC																											
		210TC			13.63								8.44																
4	Single	140TC	8.25	7.62	15.38	2.55	3.50	6.50	0.63	0.56	1.75	1.69	9.32	0.12	2.63	5.88	4.5	1.69	6.50										
		180TC																											
		210TC			15.38								9.32																
		250TC																											
Size	Red.	Frame Size	BE	BF	No. of Holes	DB	DD	FB	No. of Holes	JA	KA	LA	LM	ZN	UA	K.W. Sq.	U		Key										
3	Single	56C	0.62	0.41	4	9.00	4.38	1/2-13 THD	4	7.25	8.50	~	3.63	—	0.620	0.188	1.124	1.125	0.250	1.75									
		140TC		0.53									5.19		0.875														
		180TC													1.125														
		210TC													1.375														
4	Single	140TC	0.62	0.41	4	9.00	4.82	1/2-13 THD	4	7.25	8.50	~	3.63	—	0.875	0.188	1.124	1.125	0.250	1.75									
		180TC		0.53									5.19		1.125														
		210TC													1.375														
		250TC													1.625														

\* All dimensions in inches.

▲ Dimensions in parentheses indicate negative values.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-61	PRICING G9-112
C-FACE MOTOR DIMENSIONS G9-98	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



**Double, Triple Reduction C-Face Reducer\***  
(Flange Mount)

Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	O	W <sup>a</sup>	AH	AJ	AK	BA	BD
3	Double	56C	8.38	8.00	15.88	5.37	3.56	7.00	0.63	0.44	1.50	1.38	10.29	(0.25)	3.31	5.88	4.5	2.38	6.50
		140TC			17.66											9.00			
		180TC																	
		210TC																	
4	Double	56C	8.38	8.00	16.57	5.37	3.56	7.00	0.63	0.44	1.50	1.38	10.29	(0.25)	3.31	5.88	4.5	2.38	6.50
		140TC																	
		180TC			17.01											2.44	9.00		
		210TC																	
250TC																			
4	Triple	56C	8.25	9.00	17.76	6.17	3.50	7.88	0.63	0.56	1.75	1.69	11.67	0.06	4.00	5.88	4.5	2.44	6.50
		140TC			19.54											9.00			
		180TC																	
		180TC																	

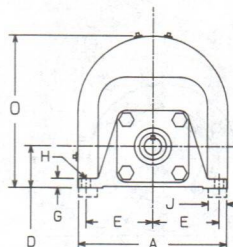
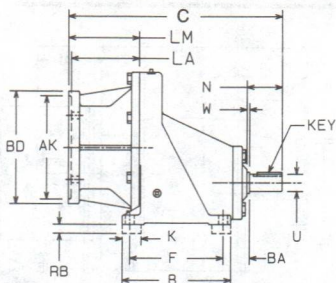
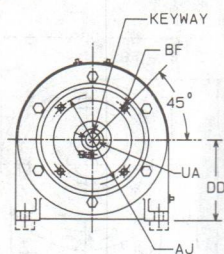
Size	Red.	Frame Size	BE	BF	No. of Holes	DB	DD	FB	No. of Holes	JA	KA	LA	LM	ZN	UA	K.W. Sqr.	U		Key	
																	Min.	Max.	Sq.	Length
3	Double	56C	0.50	0.41	4	9.84	4.39	0.531	4	8.50	7.13	~	3.63	2.94	0.620	0.188	1.374	1.375	0.313	2.38
		140TC		0.875																
		180TC		1.125																
		210TC		0.250																
4	Triple	56C	0.50	0.41	4	9.84	4.39	0.531	4	8.50	7.13	~	3.63	2.94	0.625	0.188	1.374	1.375	0.313	2.38
		140TC		0.875																
		180TC		1.125																
		210TC		0.250																
4	Double	140TC	0.50	0.41	4	11.00	4.82	0.531	4	10.00	9.00	~	3.63	2.88	0.875	0.188	1.624	1.625	0.375	2.75
		180TC		1.125																
		210TC		0.313																
		250TC		0.375																
3	Triple	56C	0.50	0.41	4	11.00	4.82	0.531	4	10.00	9.00	~	3.63	2.88	0.625	0.188	1.624	1.625	0.375	2.75
		140TC		0.875																
		180TC		1.125																
		180TC		0.250																

\* All dimensions in inches.

▲ Dimensions in parentheses indicate negative values.



# DODGE APG Dimensions—Sizes 5 & 6



Single Reduction C-Face Reducer\*

Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	N	O	W	AJ		
5	Single	180TC	12.25	8.69	16.94	3.30	5.38	7.44	0.75	0.72	2.06	1.75	2.85	12.25	0.06	7.25		
		210TC																
		250TC																
6	Single	280TC	12.25	10.44	17.69	4.21	5.13	8.62	1.00	0.88	2.44	2.56	3.62	13.75	0.12	9.00		
		210TC																
		250TC																
		280TC																
		320TC																
360TC		20.94																
Size	Red.	Frame Size	AK	BA	BD	BF	No. of Holes	DD	LA	LM	RB†	UA	K.W. Sq.	U		Key		
														Min.	Max.	Square	Length	
5	Single	180TC	8.50	1.97	9.00	0.53	4	6.10	5.19	5.41	NR	1.125	0.250	1.374	1.375	0.313	2.00	
		210TC								1.375	0.313							
		250TC	10.50			0.53	4	7.60	5.94	6.16	2.00	1.25	1.625	0.375	1.749	1.750	0.375	2.75
		280TC								1.875	0.500							
6	Single	210TC	8.50		9.00	0.53	4	7.60	5.19	5.41	NR	1.375	0.313	1.749	1.750	0.375	2.75	
		250TC	10.50	2.31	11.25						1.625	0.375						
		280TC	10.50		11.25	0.66	4	7.60	5.94	6.16	0.41	1.875	0.500	1.749	1.750	0.375	2.75	
		320TC	12.50		14.00				7.28	7.50	1.31	2.125						
		360TC									2.75	2.375	0.625					

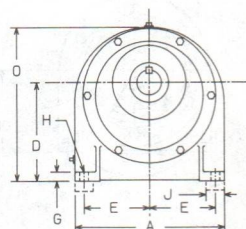
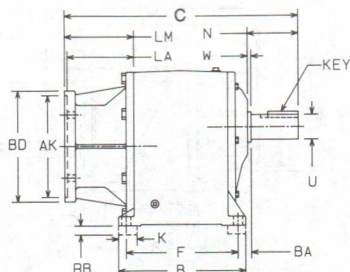
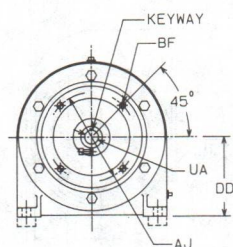
\* All dimensions in inches.

† Height of riser block that comes standard with the gearbox.

NR indicates that riser block is not required.

## REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-61	PRICING G9-112
C-FACE MOTOR DIMENSIONS G9-98	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



**Double, Triple Reduction C-Face Reducer\***

Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	N	O	W	AJ		
5	Double	180TC	12.25	10.31	18.85	7.74	5.38	9.06	0.74	0.72	2.06	1.75	4.13	12.29	0.15	7.25		
		210TC			19.60											9.00		
		250TC			17.96											5.88		
		280TC			19.73											7.25		
	Triple	56C	12.25	10.31	17.96	7.74	5.38	9.06	0.74	0.72	2.06	1.75	4.13	12.29	0.15	5.88		
		140TC			19.73											7.25		
180TC		21.10			9.00													
210TC		21.85			11.00													
6	Double	210TC	12.00	12.88	21.10	9.85	5.13	11.00	1.00	0.88	2.44	2.56	4.87	15.66	0.12	7.25		
		250TC			21.85											9.00		
		280TC			23.19											11.00		
		360TC			20.34											5.88		
	Triple	140TC	12.00	12.88	20.34	9.85	5.13	11.00	1.00	0.88	2.44	2.56	4.87	15.66	0.12	5.88		
		180TC			22.12											7.25		
210TC		22.12			7.25													
250TC		22.12			7.25													
Size	Red.	Frame Size	AK	BA	BD	BF	No. of Holes	DD	LA	LM	RB†	UA	K.W. Sq.	U		Key		
														Min.	Max.	Square	Length	
5	Double	180TC	8.50	1.08	9.00	0.53	4	6.10	5.19	5.41	NR	1.125	0.250	1.999	2.000	0.500	3.50	
		210TC			1.375				0.313									
		250TC			1.25				1.625	0.375								
		280TC			10.50				11.25	1.875	0.500							
	Triple	56C	1.08	6.50	0.41	4	6.10	~	3.63	NR	0.625	0.188	1.999	2.000	0.500	3.50		
		140TC		0.875	0.188													
180TC		1.125		0.250														
210TC		8.50		9.00	0.53			5.19	5.41	1.375	0.313							
6	Double	210TC	8.50	1.00	9.00	0.53	4	7.60	5.19	5.41	NR	1.375	0.313	2.374	2.375	0.625	4.00	
		250TC	11.25		1.625				0.375									
		280TC	10.50		14.00				0.66	5.94	6.16	0.41	1.875					0.500
		320TC	12.50		14.00				0.66	7.28	7.50	1.31	2.125					
	Triple	360TC	1.00	6.50	0.41	4	7.60	~	3.63	NR	2.75	2.375	0.625	2.374	2.375	0.625	4.00	
		140TC		4.50	6.50			0.41	5.19	5.41	NR	0.875	0.188					
180TC		8.50		9.00	0.53			5.19	5.41	NR	1.125	0.250						
210TC		8.50		9.00	0.53			5.19	5.41	NR	1.375	0.313						
250TC	10.50	14.00	0.66	7.28	7.50	2.75	2.375	0.625										

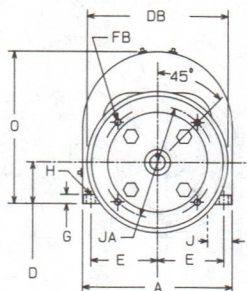
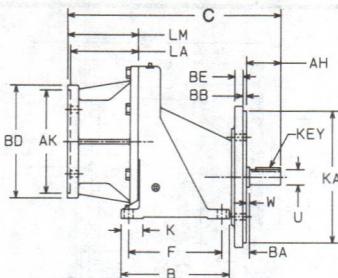
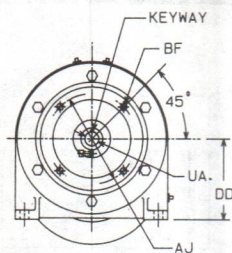
\* All dimensions in inches.

† Height of riser block that comes standard with the gearbox.

NR indicates that riser block is not required.



# DODGE APG Dimensions—Sizes 5 & 6



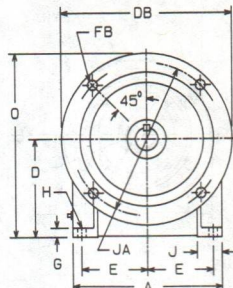
**Single Reduction C-Face Reducer\*  
(Flange Mount)**

Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	O	W▲	AH	AJ	AK	BA	BD	
5	Single	180TC	12.25	8.69	16.94	3.30	5.38	7.44	0.75	0.72	2.06	1.75	12.25	0.06	2.77	7.25	8.5	1.97	9.00	
		210TC																		
		250TC																		
		280TC																		
6	Single	210TC	12.25	10.44	18.85	4.21	5.13	8.62	1.00	0.88	2.44	2.56	13.75	0.00	3.50	7.25	8.5	2.31	9.00	
		250TC																		
		280TC			19.60															
		320TC																		
		360TC			20.94															
Size	Red.	Frame Size	BE	BF	Holes	No. of DB	DD	FB	Holes	No. of JA	KA	LA	LM	ZN	UA	Sq.	U		Key	
																	Min.	Max.	Length	
5	Single	180TC	0.94	0.53	4	11.25	6.10	1/2-13 THD	4	9.00	10.50	5.19	5.41	—	1.125	0.250	1.374	1.375	0.313	2.00
		210TC													1.375	0.313				
		250TC													1.625	0.375				
		280TC													1.875	0.500				
6	Single	210TC	0.94	0.53	4	14.00	7.60	5/8-11 THD	4	11.00	12.50	5.19	5.41	—	1.375	0.313	1.749	1.750	0.375	2.75
		250TC													1.625	0.375				
		280TC													1.875	0.500				
		320TC													2.125	0.625				
		360TC										0.66				2.375				

\* All dimensions in inches.

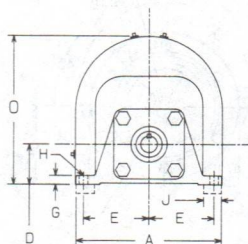
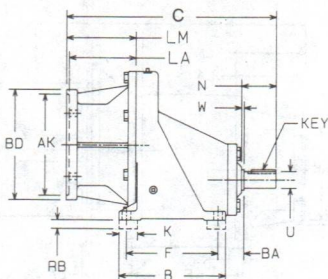
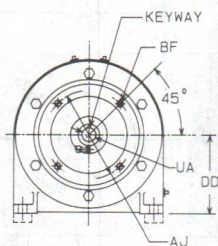
▲ Dimensions in parentheses indicate negative values.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-61	PRICING G9-112
C-FACE MOTOR DIMENSIONS G9-98	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-66	WEIGHTS G9-87





# DODGE APG Dimensions—Sizes 7 & 8



Single Reduction C-Face Reducer\*

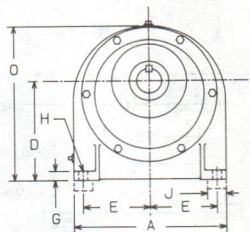
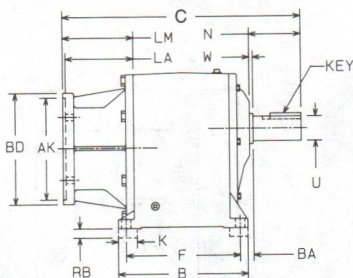
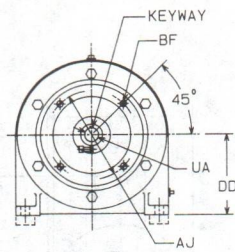
Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	N	O	W	AJ	
7		250TC	18.25	12.50	21.47	6.62	7.81	10.12	1.38	1.31	3.38	3.00	4.50	20.06	0.16	7.25	
		280TC			22.22											9.00	
		320TC			23.53											11.00	
		360TC			24.69											9.00	
8		280TC	18.25	14.25	26.00	6.15	7.81	11.88	1.75	1.31	3.50	3.75	5.62	20.44	0.16	11.00	
		320TC														9.00	
		360TC														11.00	
Size	Red.	Frame Size	AK	BA	BD	BF	Holes	No. of DD	LA	LM	RB†	UA	K.W. Square	U		Key	
7		250TC	8.50	3.00	9.00	0.53	4	10.94	5.19	5.41	NR	1.625	0.375	2.249	2.250	0.500	3.50
		280TC	10.50		11.25	5.94			6.16	1.875		0.500					
		320TC	12.50		14.00	0.66			7.25	7.47		2.125	0.625				
		360TC	12.50		14.00	0.66			7.25	7.47		2.375	0.625				
8		280TC	10.50	3.00	11.25	0.53	4	11.42	5.94	6.16	NR	1.875	0.500	2.749	2.750	0.625	5.00
		320TC	12.50		14.00	0.66			7.25	7.47		2.125	0.625				
		360TC	12.50		14.00	0.66			7.25	7.47		2.375	0.625				

\* All dimensions in inches.

† Height of the riser block that comes standard with the gearbox.

NR indicates that riser block is not required.

REFERENCES	
FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-61	PRICING G9-112
C-FACE MOTOR DIMENSIONS G9-98	INSTALLATION/MAINTENANCE G9-108
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



**Double, Triple Reduction C-Face Reducers\***

Size	Red.	Frame Size	A	B	C	D	E	F	G	H	J	K	N	O	W	AJ					
7	Double	250TC	18.25	16.12	24.36	13.92	7.81	13.75	1.36	1.31	3.31	3.44	5.94	21.65	0.19	7.25					
		280TC			25.11											9.00					
		320TC			26.43											11.00					
		360TC																			
	Triple	180TC	18.25	16.12	25.57	13.92	7.81	13.75	1.36	1.31	3.31	3.44	5.94	21.65	0.19	7.25					
		210TC														9.00					
		250TC			26.32											9.00					
		280TC			29.68											9.00					
8	Double	280TC	18.25	18.62	30.99	15.09	7.81	16.16	1.75	1.31	3.44	3.75	7.48	24.36	0.23	11.00					
		320TC														7.25					
		360TC			30.99																
		210TC			18.25											18.62	30.38	15.09	7.81	16.16	1.75
	250TC		9.00																		
	280TC	31.13																			
	320TC		9.00																		
	360TC	32.47		11.00																	
Size	Red.	Frame Size	AK	BA	BD	BF	No. of Holes	DD	LA	LM	RB†	UA	K.W. Square	U		Key					
														Min.	Max.	Square	Length				
7	Double	250TC	8.50	0.94	9.00	0.53	4	10.95	5.19	5.41	NR	1.625	0.375	2.874	2.875	0.750	5.00				
		280TC	10.50		11.25				5.94	6.16		1.875	0.500								
		320TC	12.50		14.00	0.66			7.25	7.47		2.125	0.625								
		360TC										2.375	0.625								
	Triple	180TC	8.50	0.94	9.00	0.53	4	10.95	5.19	5.41	NR	1.125	0.250	2.874	2.875	0.750	5.00				
		210TC										1.375	0.313								
		250TC										1.625	0.375								
		280TC										1.825	0.500								
8	Double	280TC	10.50	1.61	11.25	0.53	4	11.30	5.94	6.16	NR	1.875	0.500	3.624	3.625	0.875	6.00				
		320TC	12.50		14.00	0.66			7.25	7.47		2.125	0.625								
		360TC										2.375	0.625								
		210TC	8.50		9.00	0.53	4	11.30	5.19	5.41	NR	1.375	0.313								
	Triple	250TC										1.625	0.375								
		280TC										1.875	0.500								
		320TC										2.125	0.625								
		360TC										2.375	0.625								

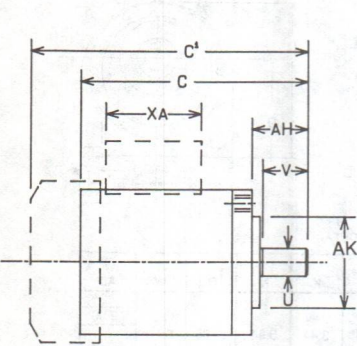
\* All dimensions in inches.

† Height of the riser block that comes standard with the gearbox.

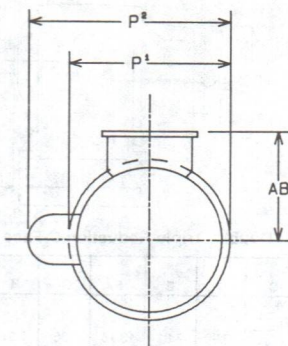
NR indicates that riser block is not required.



# Electric Motor Dimensions

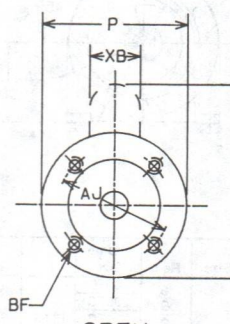


56C/140TC



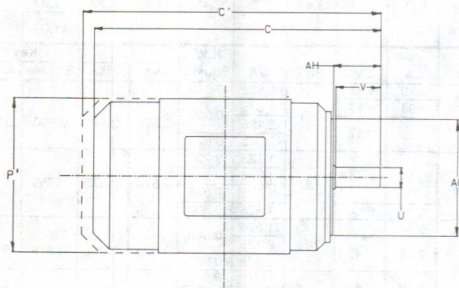
TEFC

56C/140TC

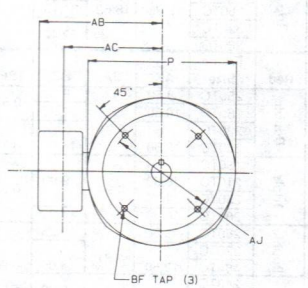


OPEN  
TENV

56C/140TC



182TC thru 365TC



182TC thru 365TC

## DIMENSIONS ARE LISTED IN INCHES

Frame	C	C <sup>1</sup>	V	P	P <sup>1</sup>	P <sup>2</sup>	AB	XA	XB	AJ	AK	BF	U	AH
AA56C/EA56C	9.50	—	1.88	5.62	—	7.50	—	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AB56C/EB56C	10.25	—	1.88	5.62	—	7.50	—	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AC56C/EC56C	10.50	10.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AD56C/ED56C	11.00	11.22	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AE56C/EE56C	11.50	11.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
AF56C/EF56C	12.50	12.72	1.88	5.62	6.20	7.50	4.27	4.25	1.90	5.88	4.50	⅜-16	.625	2.06
BA56C/FA56C	10.12	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BB56C/FB56C	11.12	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BC56C/FC56C	12.12	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BD56C/FD56C	13.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BE56C/FE56C	14.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BF56C/FF56C	15.18	—	1.88	6.45	—	9.07	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
BK56C/FK56C	11.62	—	1.88	6.45	—	8.30	—	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FR56C	9.55	—	1.88	6.45	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
FB56C	—	11.48	1.88	6.45	7.28	8.72	4.69	4.26	1.91	5.88	4.50	⅜-16	.625	2.06
FC56C	—	12.48	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FK56C	—	11.98	1.88	6.45	7.28	8.72	4.69	4.26	1.91	5.88	4.50	⅜-16	.625	2.06
FJ56C	—	12.92	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FD56C	—	13.54	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
FE56C	—	14.54	1.88	6.45	7.28	9.49	4.69	5.82	2.65	5.88	4.50	⅜-16	.625	2.06
GA56C(1)	10.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GB56C(1)	11.50	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GC56C(1)	11.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GD56C(1)	12.25	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GE56C(1)	12.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GF56C(1)	13.75	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
GH56C(1)	13.25	—	1.88	5.65	—	—	—	—	—	5.88	4.50	⅜-16	.625	2.06
HP56C(2)	11.19	12.51	1.77	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HN56C(2)	11.69	13.01	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HR56C(2)	12.31	13.63	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HM56C(2)	13.06	14.38	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HG56C(2)	13.94	15.26	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HU56C(2)	14.81	16.13	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
HJ56C(2)	15.31	16.63	1.88	6.45	7.38	—	4.81	—	—	5.88	4.50	⅜-16	.625	2.06
FB140TC(3)	—	11.54	2.25	6.45	7.28	8.72	—	4.26	1.91	5.88	4.50	⅜-16	.875	2.12
FC140TC(3)	—	12.54	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
FK140TC(30)	—	12.04	2.25	6.45	7.28	8.72	—	4.26	1.91	5.88	4.50	⅜-16	.875	2.12
FJ140TC(3)	—	12.98	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
FD140TC(3)	—	13.60	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
FE140TC(3)	—	14.60	2.25	6.45	7.28	9.49	—	5.82	2.65	5.88	4.50	⅜-16	.875	2.12
143TC	12.62	13.81	2.25	6.45	7.28	—	4.70	—	—	5.88	4.50	⅜-16	.875	2.12
145TC	13.50	14.81	2.25	6.45	7.28	—	4.70	—	—	5.88	4.50	⅜-16	.875	2.12

## C-FACE BRAKE MOTOR DIMENSIONS

FA56C(4)	14.95	—	1.88	6.45	—	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FB56C(4)	15.95	16.88	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FK56C(4)	16.45	17.38	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FC56C(4)	16.95	17.88	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FJ56C(4)	17.39	18.32	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FD56C(4)	18.02	18.94	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06
FE56C(4)	19.02	19.94	1.88	6.45	7.40	—	4.69	—	—	5.88	4.5	⅜-16	.6250	2.06

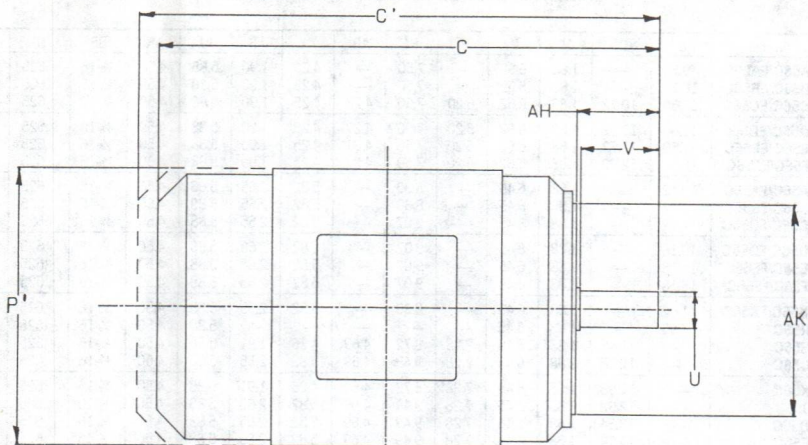
### NOTES:

Dimensions are for reference only—for detailed dimensions, contact Reliance.

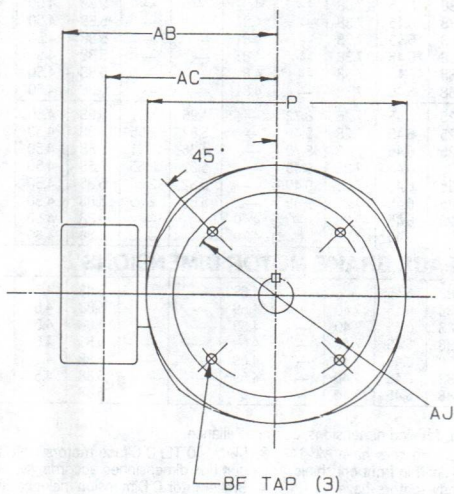
- Explosion proof 56C face 5.62" body motors have ⅜"-14 NPT female lead opening parallel to shaft in front endshield.
- Explosion proof 56C face 6.45" body motors have ⅜"-14 NPT male lead nipple perpendicular to shaft in front endshield.
- 56C/140 TEFC C-face motors have top mounted F<sub>1</sub> F<sub>2</sub> conduit box dimensioned accordingly.
- Brakemotor C Dimension includes Brake assembled to drip-proof or TEFC Motor.



# Electric Motor Dimensions



182TC thru 365TC



182TC thru 365TC

# APG Unibrake Modular Kit Dimensions

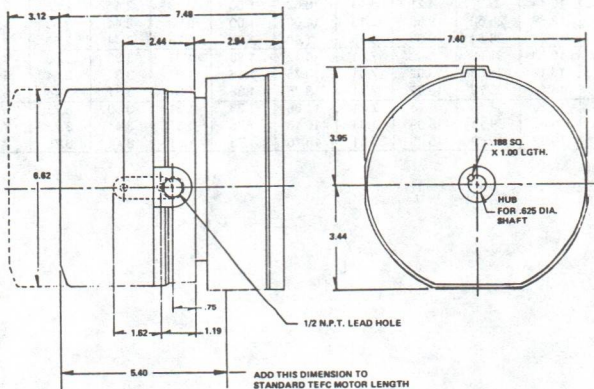
## DIMENSIONS ARE LISTED IN INCHES

FRAME	C	C'	V	P	P'	AB	AJ	AK (1)	BF (3)	U (2)	AH
182TC	15.75	17.88	2.50	9.25	9.00	7.81	7.25	8.50	1/2-13	1.125	2.62
L182TC	15.75	17.88	2.50	9.25	9.00	7.81	7.25	8.50	1/2-13	1.125	2.62
184TC	15.75	17.88	2.50	9.25	9.00	7.81	7.25	8.50	1/2-13	1.125	2.62
L184TC	15.75	17.88	2.50	9.25	9.00	7.81	7.25	8.50	1/2-13	1.125	2.62
213TC	18.75	20.88	3.12	10.50	10.50	8.69	7.25	8.50	1/2-13	1.375	3.12
L213TC	18.75	20.88	3.12	10.50	10.50	8.69	7.25	8.50	1/2-13	1.375	3.12
215TC	18.75	20.88	3.12	10.50	10.50	8.69	7.25	8.50	1/2-13	1.375	3.12
L215TC	18.75	20.88	3.12	10.50	10.50	8.69	7.25	8.50	1/2-13	1.375	3.12
254TC	21.00	23.25	3.75	12.62	13.00	10.06	7.25	8.50	1/2-13	1.625	3.75
256TC	22.75	25.00	3.75	12.62	13.00	10.06	7.25	8.50	1/2-13	1.625	3.75
284TC	23.38	25.94	4.38	14.12	14.50	12.06	9.00	10.50	1/2-13	1.875	4.38
286TC	24.88	27.44	4.38	14.12	14.50	12.06	9.00	10.50	1/2-13	1.875	4.38
324TC	26.00	28.94	5.00	16.12	16.50	13.06	11.00	12.50	5/8-11	2.125	5.00
326TC	27.50	30.44	5.00	16.12	16.50	13.06	11.00	12.50	5/8-11	2.125	5.00
364TC	29.62	33.44	5.62	18.62	19.00	17.93	11.00	12.50	5/8-11	2.375	5.62
365TC	29.62	33.44	5.62	18.62	19.00	17.93	11.00	12.50	5/8-11	2.375	5.62

Notes: Dimensions are for reference only—for detailed dimensions, contact Reliance.

- (1) "AK" VARIES  
FACE RUNOUT AND  
ECCENTRICITY
- (2) "U" VARIES
- (3) FOUR HOLES  
EIGHT HOLES

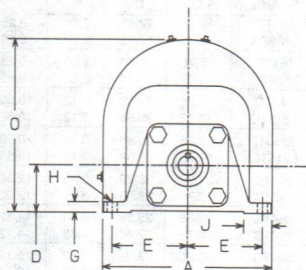
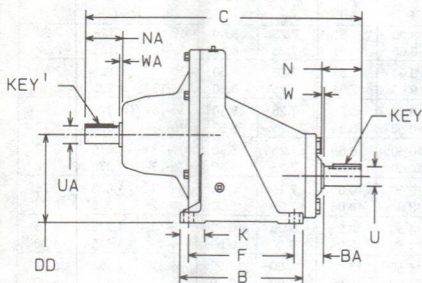
180TC-286TC INCL. +.000, -.003  
324TC-365TC INCL. +.000, -.005  
180TC-286TC INCL. .004 MAX. T.I.R.  
324TC-365TC INCL. .007 MAX. T.I.R.  
UP TO 1.625 DIA. +.0000, -.0005  
1.625 AND LARGER +.000, -.001  
180TC-326TC  
364TC-365TC





# DODGE APG Dimensions—Sizes 3-8

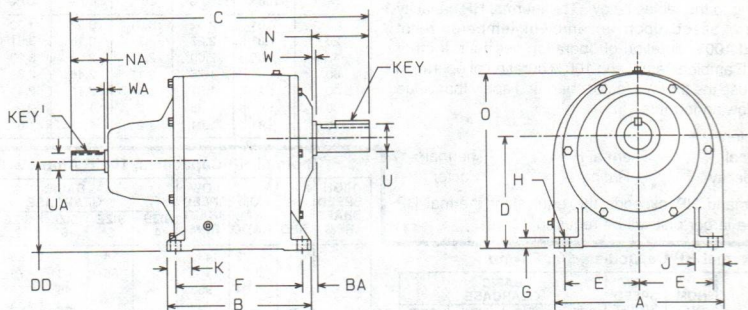
## Single, Double, & Triple Separate Reducers\*



Single Reduction—Separate Reducers

Size	Red	A	B	C	D	E	F	G	H	J	K	N	O	W
3	S	8.25	6.62	16.12	2.51	3.56	5.62	0.62	0.44	1.56	1.38	2.63	8.50	0.12
	D	8.38	8.00	16.94	5.37	3.56	7.00	0.63	0.44	1.50	1.38	2.63	8.75	0.12
	T	8.38	8.00	17.63	5.37	3.56	7.00	0.63	0.44	1.50	1.38	2.63	8.75	0.12
4	S	8.25	7.62	16.84	2.55	3.50	6.50	0.62	0.56	1.75	1.69	2.63	8.94	0.12
	D	8.25	9.00	18.29	6.17	3.50	7.88	0.63	0.56	1.75	1.69	3.39	10.03	0.13
	T	8.25	9.00	19.04	6.17	3.50	7.88	0.63	0.56	1.75	1.69	3.39	10.03	0.13
5	S	12.25	8.69	19.65	3.30	5.38	7.44	0.75	0.72	2.06	1.75	2.85	12.25	0.06
	D	12.25	10.31	21.56	7.74	5.38	9.06	0.74	0.72	2.06	1.75	4.13	12.29	0.15
	T	12.25	10.31	22.43	7.74	5.38	9.06	0.74	0.72	2.06	1.75	4.13	12.29	0.15
6	S	12.25	10.44	23.37	4.21	5.13	8.62	1.00	0.88	2.44	2.56	3.62	13.75	0.12
	D	12.00	12.88	25.62	9.85	5.13	11.00	1.00	0.88	2.44	2.56	4.87	15.66	0.12
	T	12.00	12.88	26.64	9.85	5.13	11.00	1.00	0.88	2.44	2.56	4.87	15.66	0.12
7	S	18.25	12.50	31.68	6.62	7.81	10.12	1.38	1.31	3.38	3.00	4.50	20.06	0.16
	D	18.25	16.12	34.58	13.92	7.81	13.75	1.36	1.31	3.31	3.44	5.94	21.65	0.19
	T	18.25	16.12	35.78	13.92	7.81	13.75	1.36	1.31	3.31	3.44	5.94	21.65	0.19
8	S	18.25	14.25	34.15	6.15	7.81	11.88	1.75	1.31	3.50	3.75	5.62	20.44	0.16
	D	18.25	18.62	39.14	15.09	7.81	16.16	1.75	1.31	3.44	3.75	7.48	24.36	0.23
	T	18.25	18.62	40.59	15.09	7.81	16.16	1.75	1.31	3.44	3.75	7.48	24.36	0.23

\*All dimensions in inches.



Double, Triple Reduction—Separate Reducers

Size	Red.	BA	DD	NA	WA	Input Shaft				Output Shaft			
						U		Key	Length	U		Key	Length
						Min.	Max.			Min.	Max.		
3	S	1.62	4.38	2.12	0.12	0.999	1.000	0.250	1.75	1.124	1.125	0.250	1.75
	D	1.07	4.39	2.12	0.12	0.999	1.000	0.250	1.75	1.249	1.250	0.250	1.75
	T	1.07	4.39	2.12	0.12	0.999	1.000	0.250	1.75	1.249	1.250	0.250	1.75
4	S	1.69	4.82	2.12	0.12	0.999	1.000	0.250	1.75	1.124	1.125	0.250	1.75
	D	0.98	4.82	2.12	0.12	0.999	1.000	0.250	1.75	1.624	1.625	0.375	2.75
	T	0.98	4.82	2.12	0.12	0.999	1.000	0.250	1.75	1.624	1.625	0.375	2.75
5	S	1.97	6.10	2.62	0.12	1.249	1.250	0.250	2.00	1.374	1.375	0.313	2.00
	D	1.08	6.10	2.62	0.12	1.249	1.250	0.250	2.00	1.999	2.000	0.500	3.50
	T	1.08	6.10	2.62	0.12	1.249	1.250	0.250	2.00	1.999	2.000	0.500	3.50
6	S	2.19	7.60	3.12	0.12	1.499	1.500	0.375	2.50	1.749	1.750	0.375	2.75
	D	1.00	7.60	3.12	0.12	1.499	1.500	0.375	2.50	2.374	2.375	0.625	4.00
	T	1.00	7.60	3.12	0.12	1.499	1.500	0.375	2.50	2.374	2.375	0.625	4.00
7	S	3.00	10.94	4.37	0.12	2.124	2.125	0.500	3.75	2.249	2.250	0.500	3.50
	D	0.94	10.95	4.37	0.12	2.124	2.125	0.500	3.75	2.874	2.875	0.750	5.00
	T	0.94	10.95	4.37	0.12	2.124	2.125	0.500	3.75	2.874	2.875	0.750	5.00
8	S	3.00	11.42	4.37	0.12	2.124	2.125	0.500	3.75	2.749	2.750	0.625	5.00
	D	1.61	11.30	4.37	0.12	2.124	2.125	0.500	3.75	3.624	3.625	0.875	6.00
	T	1.61	11.30	4.37	0.12	2.124	2.125	0.500	3.75	3.624	3.625	0.875	6.00

REFERENCES

FEATURES G9-3	NOMENCLATURE G9-7
SELECTION G9-61	PRICING G9-112
C-FACE MOTOR DIMENSIONS G9-98	INSTALLATION MAINTENANCE G9-108
MOUNTING POSITIONS G9-66	WEIGHTS G9-87



# DODGE APG Thermal HP Ratings★

When the horsepower rating in the selection table appears in the shaded area, compare the actual HP required (without service factor) with the thermal HP capacity by referring to the tables below. The thermal HP capacity ratings are based upon an ambient temperature of 100°F and 100% duration of operation per hour. If other than 100°F ambient temp. and 100% duration of operation per hour, use the thermal factor chart and apply that value to the following formula:

$$\text{Equivalent Thermal HP Capacity} = \text{Thermal HP Rating} \times \text{Thermal Factor}$$

If the demand HP exceeds the equivalent thermal HP capacity, a larger unit will be required.

**Thermal HP Capacities, 100°F Amb.**

HIGH SPEED SHAFT RPM	RED.	NOM-INAL RATIO	LOW SPEED SHAFT RPM	BASIC GEARCASE			
				SIZE 3	SIZE 4	SIZE 5	SIZE 6
3600	Single	1.22	2951	18	20	24	26
		1.5	2400		21	26	27
		1.84	1957		21	28	29
		2.25	1600		22	29	32
		2.76	1304			31	34
		3.38	1065			32	36
	Double	4.13	872			33	38
		5.06	711				41
		4.13	872	18	18	21	22
		5.06	711	18	19	22	23
		6.2	581	18	20	24	26
		7.59	474		21	27	27
	Single	9.3	387		21	28	29
		11.4	316		22	29	32
		14.0	258			31	34
		17.1	211			32	36
		20.9	172			33	38
		25.6	141				41
	Double	4.13	872	18	18	21	22
		5.06	711	18	19	22	23
		6.2	581	18	20	24	26
		7.59	474		21	27	27
		9.3	387		21	28	29
		11.4	316		22	29	32

**Thermal HP Capacities, 100°F Amb.**

HIGH SPEED SHAFT RPM	RED.	NOM-INAL RATIO	LOW SPEED SHAFT RPM	BASIC GEARCASE				
				SIZE 4	SIZE 5	SIZE 6	SIZE 7	SIZE 8
2500	Single	1.22	2049	23	32	36	52	56
		1.5	1667	23	33	38	56	60
		1.84	1359		34	40	60	63
		2.25	1111		35	41	64	67
		2.76	906			42	68	71
		3.38	740			44	73	80
	Double	4.13	605				78	87
		5.06	494					92
		4.13	609	21	28	30	50	NA
		5.06	494	22	30	32	51	NA
		6.2	403	23	32	36	52	56
		7.59	329	23	33	38	56	60
	Single	9.3	269		34	40	60	63
		11.4	219		35	41	64	67
		14.0	179			42	68	71
		17.1	146			44	73	80
		20.9	120				78	87
		25.6	99					92
	Double	4.13	609	21	28	30	50	NA
		5.06	494	22	30	32	51	NA
		6.2	403	23	32	36	52	56
		7.59	329	23	33	38	56	60
		9.3	269		34	40	60	63
		11.4	219		35	41	64	67

\* Units not thermally limited meet 120°F Ambient and 100% duration condition.

**Thermal Factors for Ambient Temperatures**

AMBIENT TEMP. °F	DURATION OF OPERATION PER HOUR				
	100%	80%	60%	40%	20%
0	2.01	2.52	3.01	3.52	4.02
20	1.81	2.27	2.71	3.16	3.61
40	1.60	2.00	2.41	2.80	3.20
60	1.41	1.76	2.11	2.46	2.82
80	1.2	1.51	1.81	2.11	2.41
100	1.0	1.25	1.5	1.75	2.0
120	.81	1.01	1.2	1.41	1.61

**Thermal HP Capacities, 100°F Amb.**

HIGH SPEED SHAFT RPM	RED.	NOM-INAL RATIO	LOW SPEED SHAFT RPM	BASIC GEARCASE				
				SIZE 4	SIZE 5	SIZE 6	SIZE 7	SIZE 8
1750	Single	1.22	1430			34	41	66
		1.5	1170			36	43	75
		1.84	950				45	75
		2.25	780				47	79
		2.76	640					81
		3.38	520					91
	Double	4.13	420					95
		5.06	350					100
		6.2	280	22	31	40	60	NA
		7.59	230	23	32	40	61	NA
		9.3	190		34	41	66	67
		11.4	150		35	43	75	75
	Single	14.0	125			45	75	80
		17.1	100			47	79	87
		20.9	84				81	91
								95
								99
								100
	Double	4.13	420	22	31	40	60	NA
		5.06	350	23	32	40	61	NA
		6.2	280		34	41	66	67
		7.59	230		35	43	75	75
		9.3	190			45	75	80
		11.4	150			47	79	87

**Thermal HP Capacities, 100°F Amb.**

HIGH SPEED SHAFT RPM	RED.	NOM-INAL RATIO	LOW SPEED SHAFT RPM	BASIC GEARCASE			
				SIZE 5	SIZE 6	SIZE 7	SIZE 8
1460	Single	1.22	1172		37	44	73
		1.5	953			46	76
		1.84	777			48	81
		2.25	636				82
		2.76	519				100
		3.38	432				104
	Double	4.13	354		34	39	66
		5.06	289		35	42	69
		6.2	231		37	44	73
		7.59	188			46	76
		9.3	154			48	81
		11.4	126				82
	Single	14.0	103				100
		17.1	85				104
		20.9					
	Double	4.13	354		34	39	66
		5.06	289		35	42	69
		6.2	231		37	44	73
		7.59	188			46	76
		9.3	154			48	81
		11.4	126				82

**Thermal HP Capacities, 100°F Amb.**

HIGH SPEED SHAFT RPM	RED.	NOM-INAL RATIO	LOW SPEED SHAFT RPM	BASIC GEARCASE		
				SIZE 6	SIZE 7	SIZE 8
1170	Single	1.22	959		44	78
		1.5	780		47	81
		1.84	636			83
		2.25	520			100
		2.76	424			103
	Double	4.13	283		39	73
		5.06	231		42	76
		6.2	189		44	78
		7.59	154		47	81
		9.3	126			83
		11.4	103			100
	Single	14.0	84			103
	Double	4.13	283		39	73
		5.06	231		42	76
		6.2	189		44	78
		7.59	154		47	81
		9.3	126			83
		11.4	103			100

# DODGE APG Exact Ratios

EXACT RATIOS FOR ALL CONFIGURATIONS

AGMA NOMINAL RATIO	BASIC GEARCASE SIZE					
	3	4	5	6	7	8
1.23	1.24	1.24	1.21	1.25	1.21	1.25
1.50	1.53	1.47	1.50	1.48	1.50	1.48
1.84	1.81	1.85	1.88	1.88	1.88	1.88
2.25	2.30	2.22	2.26	2.27	2.26	2.27
2.76	2.79	2.79	2.79	2.79	2.79	2.79
3.38	3.33	3.33	3.33	3.33	3.33	3.33
4.13 S	4.06	4.06	4.06	4.06	4.06	4.06
4.13 D	4.12	4.14	4.02	4.17	4.02	—
5.06 S	5.07	5.07	5.07	5.07	5.07	5.07
5.06 D	5.11	4.89	5.00	4.94	5.00	—
6.20	6.26	6.29	6.11	6.33	6.11	6.33
7.59	7.77	7.43	7.60	7.51	7.60	7.51
9.30	9.20	9.35	9.55	9.53	9.55	9.53
11.39	11.68	11.23	11.46	11.52	11.46	11.52
13.95	14.14	14.14	14.14	14.14	14.14	14.14
17.09	16.89	16.89	16.89	16.89	16.89	16.89
20.93	20.55	20.55	20.55	20.55	20.55	20.55
25.63	25.67	25.67	25.67	25.67	25.67	25.67
31.39	32.15	32.59	31.36	31.98	32.15	31.98
38.44	38.38	38.92	37.45	38.18	38.38	38.18
47.08	46.70	47.35	45.56	46.46	46.70	46.46
56.67	58.34	59.16	56.92	58.04	58.34	58.04
70.63	71.67	71.67	71.67	71.67	71.67	71.67
86.50	85.57	85.57	85.57	85.57	85.57	85.57
105.9	104.11	104.11	104.11	104.11	104.11	104.11
129.7	130.07	130.07	130.07	130.07	130.07	130.07

**Note:**

Where ratios are available in both single reduction and double reduction configurations, the letter "S" designates single reduction and the letter "D" designates double reduction.

REFERENCES

GEARMOTOR SELECTION	G9-9	REDUCER SELECTION	G9-61
GEARMOTOR DIMENSIONS	G9-50	REDUCER DIMENSIONS	G9-88, G9-104



# DODGE APG Load Location Factors

## Low Speed Shafts (Output)

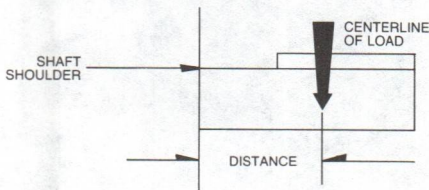
Load Location Factors for Low Speed Shafts (Output)

Distance in Inches	Basic Gearcase Size			
	3		4	
	Single	D & T	Single	D & T
.50	—	—	—	—
.75	—	—	—	—
1.00	.895	.792	.895	.720
1.25	1.000	.896	1.000	.813
1.50	1.105	1.000	1.105	.907
1.75	1.210	1.104	1.210	1.000
2.00	1.315	1.208	1.315	1.093
2.25	1.420	1.313	1.420	1.187
2.50	—	1.417	—	1.280
2.75	—	1.521	—	1.373
3.00	—	—	—	1.466

Distance in Inches	Basic Gearcase Size							
	5		6		7		8	
	Single	D & T	Single	D & T	Single	D & T	Single	D & T
1.00	.833	.643	.768	.600	.699	.530	.619	.638
1.25	.917	.723	.834	.667	.759	.587	.670	.686
1.50	1.000	.802	.901	.733	.819	.644	.721	.734
1.75	1.083	.881	.967	.800	.880	.701	.772	.783
2.00	1.167	.960	1.033	.867	.940	.758	.822	.831
2.25	1.250	1.040	1.099	.933	1.000	.815	.873	.879
2.50	1.333	1.119	1.166	1.000	1.060	.872	.924	.928
2.75	1.417	1.198	1.232	1.067	1.120	.929	.975	.976
3.00	—	1.277	1.298	1.133	1.181	.986	1.025	1.024
3.50	—	1.436	1.430	1.267	1.301	1.100	1.127	1.121
4.00	—	1.594	—	1.400	1.422	1.215	1.228	1.217
4.50	—	—	—	1.533	1.542	1.329	1.330	1.314
5.00	—	—	—	—	—	1.443	1.431	1.411
5.50	—	—	—	—	—	1.557	1.533	1.507
6.00	—	—	—	—	—	—	—	1.604
6.50	—	—	—	—	—	—	—	1.700
7.00	—	—	—	—	—	—	—	1.757

In order to minimize overhung load and increase bearing life, load centerline should be located as close to the shaft shoulder as possible.



For applications where OHL exceeds cataloged values contact application engineering @ 812-376-1100 or use the reducer selection tables to select the next larger size gearcase.

## High Speed Shafts (Input)

Load Location Factors for High Speed Shafts (Input)

Distance in Inches	Basic Gearcase Size					
	3	4	5	6	7	8
.50	—	—	—	—	—	—
.75	.923	.862	—	—	—	—
1.00	1.077	1.000	.889	.805	.715	.719
1.25	1.231	1.138	1.000	.902	.796	.782
1.50	1.385	1.276	1.111	1.000	.878	.844
1.75	1.538	1.414	1.222	1.098	.959	.906
2.00	—	1.552	1.333	1.195	1.041	.969
2.25	—	—	1.444	1.293	1.122	1.031
2.50	—	—	1.556	1.391	1.204	1.094
2.75	—	—	—	1.488	1.285	1.156
3.00	—	—	—	1.586	1.367	1.218
3.50	—	—	—	—	1.530	1.343
4.00	—	—	—	—	—	1.468



# Installation, Lubrication and Maintenance

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The summary information provided below is not intended to give complete information on installation, lubrication and maintenance. Complete details can be found in the instruction manual and lubrication tag provided with each unit.

## INSTALLATION

Proper installation of DODGE APG will insure reliable service and maximum life. Key items to minimize possible failures include:

**Gear Case Mounting**—To insure uniform pressure mount gear case on flat surface. Use uniform torque when mounting bolts are tightened.

**Shaft Overhung Loads**—Excessive overhung loads due to over tightening of belts or chains can result in broken shafts and reduce bearing life or failure.

**Couplings**—Improper coupling alignment can result in excessive stresses on gear unit shaft and bearings.

**Shock Loads**—Excessive shock loads can also result in damaging stresses on shafting and bearings. See selection procedure, pages G9-9 & G9-61 for correct service factors.

## LUBRICATION

Proper lubrication of DODGE APG is extremely important if long trouble free operation is to be expected. Proper lubrication consists of:

1. Use of proper type and grade of lubricant.
2. Maintenance of correct oil level.
3. Drain, flush, and refill at the required intervals.

The DODGE APG is filled at the factory with synthesized oil to the correct level for the specified mounting position.

The correct amount of oil is important to the performance of DODGE APG. Each DODGE APG unit has a red oil level plug which indicates the proper oil level for a given mounting position. Changes in the mounting position will require relocation of the level plug and adding or draining lubricant to insure proper amount of lubricant. Check the oil level plug location diagrams in the installation and maintenance manual shipped with each reducer.

## VISUAL INSPECTION

In addition to lubrication and installation, regular inspection to insure tightness of bolts and screws, correct alignment of shaft couplings, no major oil leaks, no excessive heating and no unusual vibration or noises will guarantee maximum performance and life of your DODGE APG product.

## MAINTENANCE SUMMARY FOR DODGE APG

Lubricant provided by the factory will operate (with no change required) up to one year in service. No initial oil change is required. This is one of the performance benefits provided by synthesized lubricant. As long as recommended lubricants are used, the once per year oil change should be continued for the life of the product. At each oil change, fittings provided should be greased using recommended lubricant. An installation and maintenance manual showing required oil levels for various mounting positions, and recommended lubricants is provided with each unit.

# DODGE APG Backstop Assemblies

## DODGE APG Parallel Reducer Backstop Assemblies

Optional backstops are offered on separate reducers (shaft in/shaft out) for service conditions that require the prevention of reverse direction. On sizes R3 through R8, backstops are internally installed on the high speed pinion shaft.

When ordering a reducer with a backstop, it will be necessary to indicate on the order the desired direction of rotation of the output shaft, either by designating "CW" for clockwise, or "CCW" for counter-clockwise, when looking at the output shaft.

Backstops are independently grease lubricated. They are regreaseable without reducer disassembly.

**Warning:** Backstops are not recommended for applications involving energy absorption and shock or torque loads in excess of reducer ratings nor on applications such as chair lifts, amusement rides, etc., and where the safety of persons or property is dependent on their function. On such applications, other safety devices must be provided.

## DODGE APG Backstop Pricing

SIZE	LIST PRICE
3	\$ 800
4	\$ 950
5	\$1,270
6	\$2,190
7	\$3,990
8	\$5,300

Gearcase Size	Backstop Part No.
R3	3FS
R4	4FS
R5	5FS
R6	6FS
R7	7FS
R8	8FS

## DODGE APG Baseplate Packages

Heavy duty baseplate packages are available on a made-to-order basis through Application Engineering. These packages are quoted on a per application basis. Contact Application Engineering at (812) 376-1100 for details.

REFERENCES
DIMENSIONS G9-102



# DODGE APG Ratio Compatibility

## APG C-Face Reducers Ratio Availability by Motor Frame and Case Size

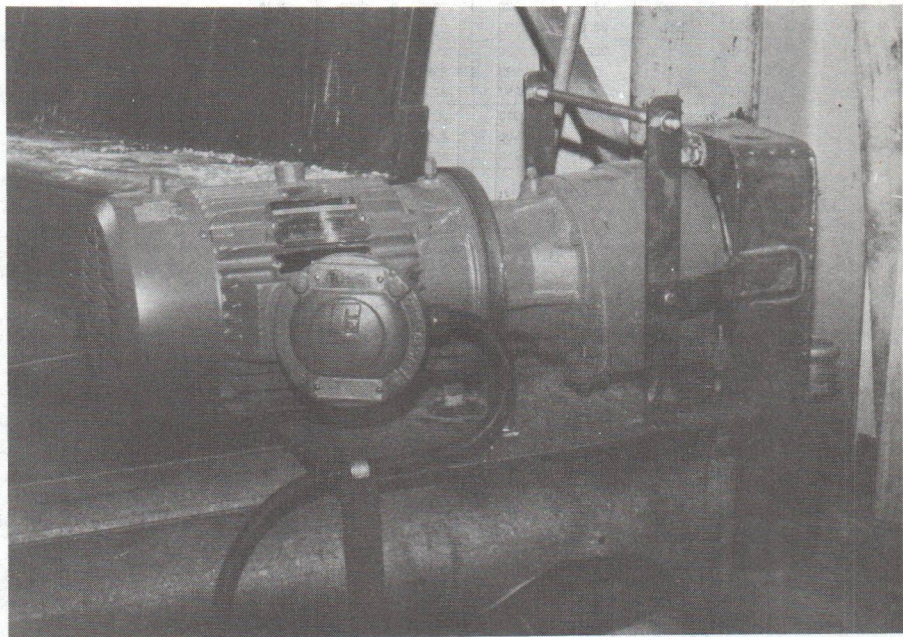
		Motor Frame Sizes							
Case Sizes		56C 140TC	180TC	210TC	250TC	280TC	320TC	360TC	
G E A R  R A T I O S	Single	1.22	3	3-4	3-4	4-6	5-6	6-8	6-8
		1.50	3	3-5	3-5	4-6	5-6	6-8	6-8
		1.84	3	3-5	3-5	4-7	5-7	6-8	6-8
		2.25	3-5	3-6	3-6	5-7	5-7	6-8	6-8
		2.76	3-4	3-5	3-5	5-7	5-7	7-8	7-8
		3.38	3-4	3-6	4-6	5-7	5-7	7-8	7-8
		4.13	3-4	3-6	4-6	6-8	6-8	7-8	7-8
	Double	5.06	3-6	3-7	5-7	6-8	6-8	7-8	7-8
		4.13	3	3-4	3-4	4-6	5-6	6-7	6-7
		5.06	3	3-5	3-5	4-6	5-6	6-7	6-7
		6.20	3	3-4	3-4	4-6	5-6	6-8	6-8
		7.59	3	3-5	3-5	4-6	5-6	6-8	6-8
		9.30	3	3-5	3-5	4-7	5-7	6-8	6-8
		11.4	3-5	3-6	3-6	5-7	5-7	6-8	6-8
		14.0	3-4	3-5	3-5	5-7	5-7	7-8	7-8
		17.1	3-4	3-6	4-6	5-7	5-7	7-8	7-8
		20.9	3-4	3-6	4-6	6-8	6-8	7-8	7-8
Triple	25.6	3-6	3-7	5-7	6-8	6-8	7-8	7-8	
	31.4	3-6	4-7	4-7	6-8	6-8	7-8	7-8	
	38.4	3-6	4-7	4-7	6-8	6-8	7-8	7-8	
	47.1	3-6	4-7	4-7	6-8	6-8	7-8	7-8	
	57.7	3-6	4-7	4-7	6-8	6-8	7-8	7-8	
	70.6	3-6	4-8	6-8	7-8	7-8	8	8	
	86.5	3-6	4-8	6-8	7-8	7-8	8	8	
	105.9	3-6	4-8	6-8	7-8	7-8	8	8	
129.7	3-6	4-8	6-8	7-8	7-8	8	8		

REFERENCES			
GEARMOTOR SELECTION		G9-9	REDUCER SELECTION
GEARMOTOR DIMENSIONS		G9-50	G9-61
			REDUCER DIMENSIONS
			G9-88, G9-102

## DODGE APG Appendix

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Component Pricing .....	G9-112
Separate Reducer Model Number Index .....	G9-113
C-Face Reducer Model Number Index .....	G9-114
Integral Gearmotor Model Number Index .....	G9-117



Unloading of bulk sugar from railcars with Size 3 double reduction APG reducer with C-face adapter and motor.

**Note:** Guards have been removed for photographic purposes.



# DODGE APG Component Pricing

## C-Face Reducers

DISCOUNT D42-a

Gear Case Size	Motor Frame						
	56 Fr.	143/145 Fr.	182/184 Fr.	213/215 Fr.	254/256 Fr.	284/286 Fr.	324/326 364/365 Fr.
SM3A	\$ 782	\$ 782	\$ 825	\$ 825			
DM3A	887	887	930	930			
TM3A	923	923					
SM4A	1190	1190	1264	1264	\$ 1340		
DM4A	1333	1333	1407	1407	1483		
TM4A	1457	1457	1531				
SM5A	1680	1680	1760	1760	1860	\$ 1860	
DM5A	1890	1890	1970	1970	2070	2070	
TM5A	2080	2080	2160	2160			
SM6A		2528	2628	2628	2795	2795	\$ 2912
DM6A		2893	2993	2993	3160	3160	3277
TM6A		3157	3257	3257	3424		
SM7A			3913	3913	4046	4046	4180
DM7A			4506	4506	4639	4639	4773
TM7A			4953	4953	5086	5086	
SM8A					8496	8496	8629
DM8A					10,020	10,020	10,153
TM8A				10,615	10,732	10,732	10,865

• For C-Face motor selection and pricing, refer to section 200 of the Mechanical Group List Price book (MLP).

## Separate (Shaft-In) Reducers

Gearcase Size	List Price
SR3A	\$ 782
DR3A	887
TR3A	923
SR4A	1190
DR4A	1333
TR4A	1457
SR5A	1680
DR5A	1890
TR5A	2080
SR6A	2528
DR6A	2893
TR6A	3157
SR7A	3913
DR7A	4506
TR7A	4953
SR8A	8379
DR8A	9903
TR8A	10,615

## Flanged Output List Adder C-Face/Separate/Gearmotors (change A suffix to F)

Size 3	S	\$ 54
	D	77
	T	77
Size 4	S	79
	D	113
	T	113
Size 5	S	103
	D	147
	T	147
Size 6	S	131
	D	187
	T	187

## XT/EZ Clean Gearcase Adders

Size	List Price
3	\$30
4	40
5	50
6	60
7	70
8	80

REFERENCES
MODEL NUMBERS G9-113

# APG SEPARATE REDUCER MODEL NUMBERS

FRAME SIZE	RATIO	#3	#4	#5	#6	#7	#8
SINGLE	1.22	R86000	R86008	R86016	R86024	R86032	R86040
	1.50	R86001	R86009	R86017	R86025	R86033	R86041
	1.84	R86002	R86010	R86018	R86026	R86034	R86042
	2.25	R86003	R86011	R86019	R86027	R86035	R86043
	2.76	R86004	R86012	R86020	R86028	R86036	R86044
	3.38	R86005	R86013	R86021	R86029	R86037	R86045
	4.13	R86006	R86014	R86022	R86030	R86038	R86046
	5.06	R86007	R86015	R86023	R86031	R86039	R86047
DOUBLE	4.13	R86048	R86058	R86068	R86078	R86088	....
	5.06	R86049	R86059	R86069	R86079	R86089	....
	6.20	R86050	R86060	R86070	R86080	R86090	R86100
	7.59	R86051	R86061	R86071	R86081	R86091	R86101
	9.30	R86052	R86062	R86072	R86082	R86092	R86102
	11.4	R86053	R86063	R86073	R86083	R86093	R86103
	14.0	R86054	R86064	R86074	R86084	R86094	R86104
	17.1	R86055	R86065	R86075	R86085	R86095	R86105
	20.9	R86056	R86066	R86076	R86086	R86096	R86106
	25.6	R86057	R86067	R86077	R86087	R86097	R86107
TRIPLE	31.4	R86108	R86116	R86124	R86132	R86140	R86148
	38.4	R86109	R86117	R86125	R86133	R86141	R86149
	47.1	R86110	R86118	R86126	R86134	R86142	R86150
	57.7	R86111	R86119	R86127	R86135	R86143	R86151
	70.6	R86112	R86120	R86128	R86136	R86144	R86152
	86.5	R86113	R86121	R86129	R86137	R86145	R86153
	105.9	R86114	R86122	R86130	R86138	R86146	R86154
	129.7	R86115	R86123	R86131	R86139	R86147	R86155



# MODEL NUMBER INDEX

## APG C-FACE REDUCER MODEL NUMBERS

### SIZE 3

FRAME SIZE	RATIO	56C	140TC	180TC	210TC
SINGLE	1.22	M85598	M85058	M85081	M85095
	1.50	M85033	M85059	M85082	M85096
	1.84	M85034	M85060	M85083	M85097
	2.25	M85035	M85061	M85084	M85098
	2.76	M85036	M85062	M85085	M85099
	3.38	M85037	M85063	M85086	
	4.13	M85038	M85064	M85087	
	5.06	M85039	M85065	M85088	
DOUBLE	4.13	M85040	M85066	M85089	M85100
	5.06	M85041	M85067	M85100	M85101
	6.20	M85042	M85068	M85089	M85102
	7.59	M85043	M85069	M85090	M85103
	9.30	M85044	M85070	M85102	M85104
	11.4	M85045	M85071	M85103	M85105
	14.0	M85046	M85072	M85092	M85106
	17.1	M85047	M85073	M85093	
	20.9	M85048	M85073	M85093	
	25.6	M85049	M85073	M85094	
TRIPLE	31.4	M85050	M85074		
	38.4	M85000	M85004		
	47.1	M85052	M85075		
	57.7	M85053	M85076		
	70.6	M85054	M85077		
	86.5	M85055	M85078		
	105.9	M85056	M85079		
	129.7	M85245	M85080		

## APG C-FACE REDUCER MODEL NUMBERS

### SIZE 4

FRAME SIZE	RATIO	56C	140TC	180TC	210TC	250TC
SINGLE	1.22			M85142	M85166	M85183
	1.50			M85143	M85167	M85184
	1.84			M85144	M85168	M85185
	2.25	M85107	M85125	M85145	M85169	
	2.76	M85108	M85126	M85146	M85170	
	3.38	M85109	M85127	M85147	M85171	
	4.13	M85110	M85128	M85148	M85172	
	5.06	M85111	M85129	M85149		
DOUBLE	4.13			M85150	M85016	M85186
	5.06			M85151	M85017	M85187
	6.20			M85152	M85173	M85188
	7.59			M85153	M85174	M85189
	9.30			M85154	M85175	M85190
	11.4	M85122	M85130	M85155	M85020	
	14.0	M85113	M85131	M85156	M85176	
	17.1	M85114	M85132	M85014	M85177	
	20.9	M85115	M85133	M85157	M85178	
	25.6	M85116	M85134	M85007		
TRIPLE	31.4	M85117	M85135	M85158	M85179	
	38.4	M85118	M85005	M85159	M85180	
	47.1	M85119	M85136	M85160	M85181	
	57.7	M85120	M85137	M85161	M85182	
	70.6	M85121	M85138	M85162		
	86.5	M85122	M85139	M85163		
	105.9	M85123	M85140	M85164		
	129.7	M85124	M85141	M85165		

## APG C-FACE REDUCER MODEL NUMBERS

### SIZE 5

FRAME SIZE	RATIO	56C	140TC	180TC	210TC	250TC	280TC
SINGLE	1.22					M85252	M85263
	1.50			M85215	M85236	M85253	M85264
	1.84			M85216	M85237	M85254	M85265
	2.25	M85191	M85203	M85217	M85238	M85255	M85266
	2.76			M85218	M85239	M85256	M85267
	3.38			M85219	M85240	M85257	M85268
	4.13			M85220	M85241		
	5.06	M85192	M85204	M85221	M85242		
DOUBLE	4.13					M85027	M85269
	5.06			M85222	M85243	M85028	M85270
	6.20					M85258	M85271
	7.59			M85223	M85244	M85259	M85272
	9.30			M85224	M85057	M85260	M85273
	11.4	M85193	M85205	M85225	M85025	M85031	M85274
	14.0			M85226	M85246	M85261	M85275
	17.1			M85227	M85022	M85262	M85276
	20.9			M85228	M85246		
	25.6	M85194	M85206	M85015	M85023		
TRIPLE	31.4	M85195	M85207	M85229	M85248		
	38.4	M85196	M85208	M85008	M85249		
	47.1	M85197	M85209	M85230	M85250		
	57.7	M85198	M85210	M85231	M85251		
	70.6	M85199	M85211	M85232			
	86.5	M85200	M85212	M85233			
	105.9	M85201	M85213	M85234			
	129.7	M85202	M85214	M85235			

# APG C-FACE REDUCER MODEL NUMBERS

SIZE 6

FRAME SIZE	RATIO	56C	140TC	180TC	210TC	250TC	280TC	320TC	360TC
SINGLE	1.22					M85329	M85351	M85373	M85383
	1.50					M85330	M85352	M85374	M85384
	1.84					M85331	M85353	M85375	M85385
	2.25			M85297	M85313	M85332	M85354	M85376	M85386
	2.76					M85333	M85355		
	3.38			M85298	M85314	M85334	M85356		
	4.13			M85299	M85315	M85335	M85357		
	5.06	M85277	M85287	M85300	M85316	M85336	M85358		
DOUBLE	4.13					M85337	M85359	M85377	M85387
	5.06					M85338	M85360	M85378	M85388
	6.20					M85339	M85361	M85379	M85389
	7.59					M85340	M85362	M85380	M85390
	9.30					M85341	M85363	M85381	M85391
	11.4			M85301	M85317	M85342	M85364	M85382	M85392
	14.0					M85343	M85365		
	17.1			M85302	M85318	M85344	M85366		
	20.9			M85303	M85319	M85345	M85367		
	25.6	M85278	M85288	M85304	M85320	M85346	M85368		
TRIPLE	31.4	M85279	M85289	M85305	M85321	M85347	M85369		
	3.84	M85280	M85290	M85306	M85322	M85348	M85370		
	47.1	M85281	M85291	M85307	M85323	M85349	M85371		
	57.7	M85282	M85292	M85308	M85324	M85350	M85372		
	70.6	M85283	M85293	M85309	M85325				
	86.5	M85284	M85294	M85310	M85326				
	105.9	M85285	M85295	M85311	M85327				
	129.7	M85286	M85296	M85312	M85328				

# APG C-FACE REDUCER MODEL NUMBERS

SIZE 7

FRAME SIZE	RATIO	180TC	210TC	250TC	280TC	320TC	360TC
SINGLE	1.22					M85453	M85475
	1.50					M85454	M85476
	1.84			M85413	M85433	M85455	M85477
	2.25			M85414	M85434	M85456	M85478
	2.76			M85415	M85435	M85457	M85479
	3.38			M85416	M85436	M85458	M85480
	4.13			M85417	M85437	M85459	M85481
	5.06	M85393	M85403	M85418	M85438	M85460	M85482
DOUBLE	4.13					M85461	M85483
	5.06					M85462	M85484
	6.20					M85463	M85485
	7.59					M85464	M85486
	9.30					M85465	M85487
	11.4			M85419	M85439	M85466	M85488
	14.0			M85420	M85440	M85467	M85489
	17.1			M85421	M85441	M85468	M85490
	20.9			M85422	M85442	M85469	M85491
	25.6	M85394	M85404	M85423	M85443	M85470	
TRIPLE	31.4	M85395	M85405	M85425	M85445	M85471	M85492
	38.4	M85396	M85406	M85426	M85446	M85472	M85493
	47.1	M85397	M85407	M85427	M85447	M85473	M85494
	57.7	M85398	M85408	M85428	M85448	M85474	M85495
	70.6	M85399	M85409	M85429	M85449		
	86.5	M85400	M85410	M85430	M85450		
	105.9	M85401	M85411	M85431	M85451		
	129.7	M85402	M85412	M85432	M85452		



# Model Number Index

## APG C-FACE REDUCER MODEL NUMBERS

SIZE 8

FRAME SIZE	RATIO	180TC	210TC	250TC	280TC	320TC	360TC
SINGLE	1.22					M85536	M85560
	1.50					M85537	M85561
	1.84					M85538	M85562
	2.25					M85539	M85563
	2.76					M85540	M85564
	3.38					M85541	M85565
	4.13			M85512	M85524	M85542	M85566
	5.06			M85513	M85525	M85543	M85567
DOUBLE	4.13						
	5.06						
	6.20					M85544	M85568
	7.59					M85545	M85569
	9.30					M85546	M85570
	11.4					M85547	M85571
	14.0					M85548	M85572
	17.1					M85549	M85573
	20.9			M85514	M85526	M85550	M85574
	25.6			M85515	M85527	M85551	M85575
TRIPLE	31.4			M85516	M85528	M85552	M85576
	38.4			M85517	M85529	M85553	M85577
	47.1			M85518	M85530	M85554	M85578
	57.7			M85519	M85531	M85555	M85579
	70.6	M85504	M85508	M85520	M85532	M85556	M85580
	86.5	M85505	M85509	M85521	M85533	M85557	M85581
	105.9	M85506	M85510	M85522	M85534	M85558	M85582
	129.7	M85507	M85511	M85523	M85535	M85559	M85583

**G9-117**



# DODGE APG Integral Gearmotor Model Numbers

Model #	Description	List Price	Model #	Description	List Price
AP3411430	3/4-FB56P-SG3A-1-1.22 (1430 RPM)	\$818.00	AP0111430	1-FB56P-SG3A-1-1.22 (1430 RPM)	\$831.00
AP3411170	3/4-FB56P-SG3A-1-1.50 (1170 RPM)	\$818.00	AP0111170	1-FB56P-SG3A-1-1.50 (1170 RPM)	\$831.00
AP3410950	3/4-FB56P-SG3A-1-1.84 (950 RPM)	\$818.00	AP0110950	1-FB56P-SG3A-1-1.84 (950 RPM)	\$831.00
AP3410780	3/4-FB56P-SG3A-1-2.25 (780 RPM)	\$818.00	AP0110780	1-FB56P-SG3A-1-2.25 (780 RPM)	\$831.00
AP3410640	3/4-FB56P-SG3A-1-2.76 (640 RPM)	\$818.00	AP0110640	1-FB56P-SG3A-1-2.76 (640 RPM)	\$831.00
AP3410520	3/4-FB56P-SG3A-1-3.38 (520 RPM)	\$818.00	AP0110520	1-FB56P-SG3A-1-3.38 (520 RPM)	\$831.00
AP3410420	3/4-FB56P-SG3A-1-4.13 (420 RPM)	\$818.00	AP0110420	1-FB56P-SG3A-1-4.13 (420 RPM)	\$831.00
AP3410350	3/4-FB56P-SG3A-1-5.06 (350 RPM)	\$818.00	AP0110350	1-FB56P-SG3A-1-5.06 (350 RPM)	\$831.00
AP3410280	3/4-FB56P-DG3A-1-6.20 (280 RPM)	\$923.00	AP0110280	1-FB56P-DG3A-1-6.20 (280 RPM)	\$936.00
AP3410230	3/4-FB56P-DG3A-1-7.59 (230 RPM)	\$923.00	AP0110230	1-FB56P-DG3A-1-7.59 (230 RPM)	\$936.00
AP3410190	3/4-FB56P-DG3A-1-9.30 (190 RPM)	\$923.00	AP0110190	1-FB56P-DG3A-1-9.30 (190 RPM)	\$936.00
AP3410155	3/4-FB56P-DG3A-1-11.4 (155 RPM)	\$923.00	AP0110155	1-FB56P-DG3A-1-11.4 (155 RPM)	\$936.00
AP3410125	3/4-FB56P-DG3A-1-14.0 (125 RPM)	\$923.00	AP0110125	1-FB56P-DG3A-1-14.0 (125 RPM)	\$936.00
AP3410100	3/4-FB56P-DG3A-1-17.1 (100 RPM)	\$923.00	AP0110100	1-FB56P-DG3A-1-17.1 (100 RPM)	\$936.00
AP3410084	3/4-FB56P-DG3A-1-20.9 (84 RPM)	\$923.00	AP0110084	1-FB56P-DG3A-1-20.9 (84 RPM)	\$936.00
AP3410068	3/4-FB56P-DG3A-1-25.6 (68 RPM)	\$923.00	AP0110068	1-FB56P-DG3A-1-25.6 (68 RPM)	\$936.00
AP3410056	3/4-FB56P-TG3A-1-31.4 (56 RPM)	\$959.00	AP0110056	1-FB56P-TG3A-1-31.4 (56 RPM)	\$972.00
AP3410045	3/4-FB56P-TG3A-1-38.4 (45 RPM)	\$959.00	AP0110045	1-FB56P-TG3A-1-38.4 (45 RPM)	\$972.00
AP3410037	3/4-FB56P-TG3A-1-47.1 (37 RPM)	\$959.00	AP0110037	1-FB56P-TG3A-1-47.1 (37 RPM)	\$972.00
AP3410030	3/4-FB56P-TG3A-1-57.7 (30 RPM)	\$959.00	AP0110030	1-FB56P-TG3A-1-57.7 (30 RPM)	\$972.00
AP3410025	3/4-FB56P-TG3A-1-70.6 (25 RPM)	\$959.00	AP0110025	1-FB56P-TG3A-1-70.6 (25 RPM)	\$972.00
AP3410020	3/4-FB56P-TG3A-1-86.5 (20 RPM)	\$959.00	AP0110020	1-FB56P-TG3A-1-86.5 (20 RPM)	\$972.00
AP3410016	3/4-FB56P-TG3A-1-105.9 (16.5 RPM)	\$959.00	AP0110016	1-FB56P-TG4A-1-105.9 (16.5 RPM)	\$1,490.00
AP3410013	3/4-FB56P-TG3A-1-129.7 (13.5 RPM)	\$959.00	AP0110013	1-FB56P-TG4A-1-129.7 (13.5 RPM)	\$1,490.00
AP3421430	3/4-FB56P-SG3A-2-1.22 (1430 RPM)	\$818.00	AP0121430	1-FB56P-SG3A-2-1.22 (1430 RPM)	\$831.00
AP3421170	3/4-FB56P-SG3A-2-1.50 (1170 RPM)	\$818.00	AP0121170	1-FB56P-SG3A-2-1.50 (1170 RPM)	\$831.00
AP3420950	3/4-FB56P-SG3A-2-1.84 (950 RPM)	\$818.00	AP0120950	1-FB56P-SG3A-2-1.84 (950 RPM)	\$831.00
AP3420780	3/4-FB56P-SG3A-2-2.25 (780 RPM)	\$818.00	AP0120780	1-FB56P-SG3A-2-2.25 (780 RPM)	\$831.00
AP3420640	3/4-FB56P-SG3A-2-2.76 (640 RPM)	\$818.00	AP0120640	1-FB56P-SG3A-2-2.76 (640 RPM)	\$831.00
AP3420520	3/4-FB56P-SG3A-2-3.38 (520 RPM)	\$818.00	AP0120520	1-FB56P-SG3A-2-3.38 (520 RPM)	\$831.00
AP3420420	3/4-FB56P-SG3A-2-4.13 (420 RPM)	\$818.00	AP0120420	1-FB56P-SG3A-2-4.13 (420 RPM)	\$936.00
AP3420350	3/4-FB56P-SG3A-2-5.06 (350 RPM)	\$923.00	AP0120350	1-FB56P-SG3A-2-5.06 (350 RPM)	\$936.00
AP3420280	3/4-FB56P-DG3A-2-6.20 (280 RPM)	\$923.00	AP0120280	1-FB56P-DG3A-2-6.20 (280 RPM)	\$936.00
AP3420230	3/4-FB56P-DG3A-2-7.59 (230 RPM)	\$923.00	AP0120230	1-FB56P-DG3A-2-7.59 (230 RPM)	\$936.00
AP3420190	3/4-FB56P-DG3A-2-9.30 (190 RPM)	\$923.00	AP0120190	1-FB56P-DG3A-2-9.30 (190 RPM)	\$936.00
AP3420155	3/4-FB56P-DG3A-2-11.4 (155 RPM)	\$923.00	AP0120155	1-FB56P-DG3A-2-11.4 (155 RPM)	\$936.00
AP3420125	3/4-FB56P-DG3A-2-14.0 (125 RPM)	\$923.00	AP0120125	1-FB56P-DG3A-2-14.0 (125 RPM)	\$936.00
AP3420100	3/4-FB56P-DG3A-2-17.1 (100 RPM)	\$923.00	AP0120100	1-FB56P-DG3A-2-17.1 (100 RPM)	\$936.00
AP3420084	3/4-FB56P-DG3A-2-20.9 (84 RPM)	\$923.00	AP0120084	1-FB56P-DG3A-2-20.9 (84 RPM)	\$936.00
AP3420068	3/4-FB56P-DG3A-2-25.6 (68 RPM)	\$923.00	AP0120068	1-FB56P-DG3A-2-25.6 (68 RPM)	\$936.00
AP3420056	3/4-FB56P-TG3A-2-31.4 (56 RPM)	\$959.00	AP0120056	1-FB56P-TG3A-2-31.4 (56 RPM)	\$972.00
AP3420045	3/4-FB56P-TG3A-2-38.4 (45 RPM)	\$959.00	AP0120045	1-FB56P-TG3A-2-38.4 (45 RPM)	\$972.00
AP3420037	3/4-FB56P-TG3A-2-47.1 (37 RPM)	\$959.00	AP0120037	1-FB56P-TG3A-2-47.1 (37 RPM)	\$972.00
AP3420030	3/4-FB56P-TG3A-2-57.7 (30 RPM)	\$959.00	AP0120030	1-FB56P-TG3A-2-57.7 (30 RPM)	\$972.00
AP3420025	3/4-FB56P-TG3A-2-70.6 (25 RPM)	\$959.00	AP0120025	1-FB56P-TG4A-2-70.6 (25 RPM)	\$1,490.00
AP3420020	3/4-FB56P-TG3A-2-86.5 (20 RPM)	\$959.00	AP0120020	1-FB56P-TG4A-2-86.5 (20 RPM)	\$1,490.00
AP3420016	3/4-FB56P-TG4A-2-105.9 (16.5 RPM)	\$1,477.00	AP0120016	1-FB56P-TG4A-2-105.9 (16.5 RPM)	\$1,490.00
AP3420013	3/4-FB56P-TG4A-2-129.7 (13.5 RPM)	\$1,477.00	AP0120013	1-FB56P-TG5A-2-129.7 (13.5 RPM)	\$2,103.00
AP3431430	3/4-FB56P-SG3A-3-1.22 (1430 RPM)	\$818.00	AP0131430	1-FB56P-SG3A-3-1.22 (1430 RPM)	\$831.00
AP3431170	3/4-FB56P-SG3A-3-1.50 (1170 RPM)	\$818.00	AP0131170	1-FB56P-SG3A-3-1.50 (1170 RPM)	\$831.00
AP3430950	3/4-FB56P-SG3A-3-1.84 (950 RPM)	\$818.00	AP0130950	1-FB56P-SG3A-3-1.84 (950 RPM)	\$831.00
AP3430780	3/4-FB56P-SG3A-3-2.25 (780 RPM)	\$818.00	AP0130780	1-FB56P-SG3A-3-2.25 (780 RPM)	\$831.00
AP3430640	3/4-FB56P-SG3A-3-2.76 (640 RPM)	\$818.00	AP0130640	1-FB56P-SG3A-3-2.76 (640 RPM)	\$831.00
AP3430520	3/4-FB56P-SG3A-3-3.38 (520 RPM)	\$818.00	AP0130520	1-FB56P-SG3A-3-3.38 (520 RPM)	\$936.00
AP3430420	3/4-FB56P-DG3A-3-4.13 (420 RPM)	\$923.00	AP0130420	1-FB56P-DG3A-3-4.13 (420 RPM)	\$936.00
AP3430350	3/4-FB56P-DG3A-3-5.06 (350 RPM)	\$923.00	AP0130350	1-FB56P-DG3A-3-5.06 (350 RPM)	\$936.00
AP3430280	3/4-FB56P-DG3A-3-6.20 (280 RPM)	\$923.00	AP0130280	1-FB56P-DG3A-3-6.20 (280 RPM)	\$936.00
AP3430230	3/4-FB56P-DG3A-3-7.59 (230 RPM)	\$923.00	AP0130230	1-FB56P-DG3A-3-7.59 (230 RPM)	\$936.00
AP3430190	3/4-FB56P-DG3A-3-9.30 (190 RPM)	\$923.00	AP0130190	1-FB56P-DG3A-3-9.30 (190 RPM)	\$936.00
AP3430155	3/4-FB56P-DG3A-3-11.4 (155 RPM)	\$923.00	AP0130155	1-FB56P-DG3A-3-11.4 (155 RPM)	\$936.00
AP3430125	3/4-FB56P-DG3A-3-14.0 (125 RPM)	\$923.00	AP0130125	1-FB56P-DG3A-3-14.0 (125 RPM)	\$936.00
AP3430100	3/4-FB56P-DG3A-3-17.1 (100 RPM)	\$923.00	AP0130100	1-FB56P-DG3A-3-17.1 (100 RPM)	\$936.00
AP3430084	3/4-FB56P-DG3A-3-20.9 (84 RPM)	\$923.00	AP0130084	1-FB56P-DG3A-3-20.9 (84 RPM)	\$936.00
AP3430068	3/4-FB56P-DG3A-3-25.6 (68 RPM)	\$923.00	AP0130068	1-FB56P-DG3A-3-25.6 (68 RPM)	\$936.00
AP3430056	3/4-FB56P-TG3A-3-31.4 (56 RPM)	\$959.00	AP0130056	1-FB56P-TG3A-3-31.4 (56 RPM)	\$972.00
AP3430045	3/4-FB56P-TG3A-3-38.4 (45 RPM)	\$959.00	AP0130045	1-FB56P-TG3A-3-38.4 (45 RPM)	\$972.00
AP3430037	3/4-FB56P-TG3A-3-47.1 (37 RPM)	\$959.00	AP0130037	1-FB56P-TG4A-3-47.1 (37 RPM)	\$1,490.00
AP3430030	3/4-FB56P-TG3A-3-57.7 (30 RPM)	\$959.00	AP0130030	1-FB56P-TG4A-3-57.7 (30 RPM)	\$1,490.00
AP3430025	3/4-FB56P-TG4A-3-70.6 (25 RPM)	\$1,477.00	AP0130025	1-FB56P-TG4A-3-70.6 (25 RPM)	\$1,490.00
AP3430020	3/4-FB56P-TG4A-3-86.5 (20 RPM)	\$1,477.00	AP0130020	1-FB56P-TG4A-3-86.5 (20 RPM)	\$1,490.00
AP3430016	3/4-FB56P-TG5A-3-105.9 (16.5 RPM)	\$1,477.00	AP0130016	1-FB56P-TG5A-3-105.9 (16.5 RPM)	\$2,103.00
AP3430013	3/4-FB56P-TG5A-3-129.7 (13.5 RPM)	\$2,090.00	AP0130013	1-FB56P-TG5A-3-129.7 (13.5 RPM)	\$2,103.00



# DODGE APG Integral Gearmotor Model Numbers

Model #	Description	List Price	Model #	Description	List Price
AP3211430	1 1/2-FB143P-SG3A-1-1.22 (1430 RPM)	\$838.00	AP0211430	2-FC145P-SG3A-1-1.22 (1430 RPM)	\$882.00
AP3211170	1 1/2-FB143P-SG3A-1-1.50 (1170 RPM)	\$838.00	AP0211170	2-FC145P-SG3A-1-1.50 (1170 RPM)	\$882.00
AP3210950	1 1/2-FB143P-SG3A-1-1.84 (950 RPM)	\$838.00	AP0210950	2-FC145P-SG3A-1-1.84 (950 RPM)	\$882.00
AP3210780	1 1/2-FB143P-SG3A-1-2.25 (780 RPM)	\$838.00	AP0210780	2-FC145P-SG3A-1-2.25 (780 RPM)	\$882.00
AP3210640	1 1/2-FB143P-SG3A-1-2.76 (640 RPM)	\$838.00	AP0210640	2-FC145P-SG3A-1-2.76 (640 RPM)	\$882.00
AP3210520	1 1/2-FB143P-SG3A-1-3.38 (520 RPM)	\$838.00	AP0210520	2-FC145P-SG3A-1-3.38 (520 RPM)	\$882.00
AP3210420	1 1/2-FB143P-SG3A-1-4.13 (420 RPM)	\$943.00	AP0210420	2-FC145P-SG3A-1-4.13 (420 RPM)	\$987.00
AP3210350	1 1/2-FB143P-DG3A-1-5.06 (350 RPM)	\$943.00	AP0210350	2-FC145P-DG3A-1-5.06 (350 RPM)	\$987.00
AP3210280	1 1/2-FB143P-DG3A-1-6.20 (280 RPM)	\$943.00	AP0210280	2-FC145P-DG3A-1-6.20 (280 RPM)	\$987.00
AP3210230	1 1/2-FB143P-DG3A-1-7.59 (230 RPM)	\$943.00	AP0210230	2-FC145P-DG3A-1-7.59 (230 RPM)	\$987.00
AP3210190	1 1/2-FB143P-DG3A-1-9.30 (190 RPM)	\$943.00	AP0210190	2-FC145P-DG3A-1-9.30 (190 RPM)	\$987.00
AP3210155	1 1/2-FB143P-DG3A-1-11.4 (155 RPM)	\$943.00	AP0210155	2-FC145P-DG3A-1-11.4 (155 RPM)	\$987.00
AP3210125	1 1/2-FB143P-DG3A-1-14.0 (125 RPM)	\$943.00	AP0210125	2-FC145P-DG3A-1-14.0 (125 RPM)	\$987.00
AP3210100	1 1/2-FB143P-DG3A-1-17.1 (100 RPM)	\$943.00	AP0210100	2-FC145P-DG3A-1-17.1 (100 RPM)	\$987.00
AP3210084	1 1/2-FB143P-DG3A-1-20.9 (84 RPM)	\$943.00	AP0210084	2-FC145P-DG3A-1-20.9 (84 RPM)	\$987.00
AP3210068	1 1/2-FB143P-DG3A-1-25.6 (68 RPM)	\$943.00	AP0210068	2-FC145P-DG3A-1-25.6 (68 RPM)	\$987.00
AP3210056	1 1/2-FB143P-TG3A-1-31.4 (56 RPM)	\$979.00	AP0210056	2-FC145P-TG3A-1-31.4 (56 RPM)	\$1,023.00
AP3210045	1 1/2-FB143P-TG3A-1-38.4 (45 RPM)	\$979.00	AP0210045	2-FC145P-TG3A-1-38.4 (45 RPM)	\$1,023.00
AP3210037	1 1/2-FB143P-TG3A-1-47.1 (37 RPM)	\$979.00	AP0210037	2-FC145P-TG4A-1-47.1 (37 RPM)	\$1,541.00
AP3210030	1 1/2-FB143P-TG3A-1-57.7 (30 RPM)	\$979.00	AP0210030	2-FC145P-TG4A-1-57.7 (30 RPM)	\$1,541.00
AP3210025	1 1/2-FB143P-TG4A-1-70.6 (25 RPM)	\$1,497.00	AP0210025	2-FC145P-TG4A-1-70.6 (25 RPM)	\$1,541.00
AP3210020	1 1/2-FB143P-TG4A-1-86.5 (20 RPM)	\$1,497.00	AP0210020	2-FC145P-TG4A-1-86.5 (20 RPM)	\$1,541.00
AP3210016	1 1/2-FB143P-TG5A-1-105.9 (16.5 RPM)	\$1,497.00	AP0210016	2-FC145P-TG5A-1-105.9 (16.5 RPM)	\$2,154.00
AP3210013	1 1/2-FB143P-TG5A-1-129.7 (13.5 RPM)	\$2,110.00	AP0210013	2-FC145P-TG5A-1-129.7 (13.5 RPM)	\$2,154.00
AP3221430	1 1/2-FB143P-SG3A-2-1.22 (1430 RPM)	\$838.00	AP0221430	2-FC145P-SG3A-2-1.22 (1430 RPM)	\$882.00
AP3221170	1 1/2-FB143P-SG3A-2-1.50 (1170 RPM)	\$838.00	AP0221170	2-FC145P-SG3A-2-1.50 (1170 RPM)	\$882.00
AP3220950	1 1/2-FB143P-SG3A-2-1.84 (950 RPM)	\$838.00	AP0220950	2-FC145P-SG3A-2-1.84 (950 RPM)	\$882.00
AP3220780	1 1/2-FB143P-SG3A-2-2.25 (780 RPM)	\$838.00	AP0220780	2-FC145P-SG3A-2-2.25 (780 RPM)	\$882.00
AP3220640	1 1/2-FB143P-SG3A-2-2.76 (640 RPM)	\$838.00	AP0220640	2-FC145P-SG3A-2-2.76 (640 RPM)	\$882.00
AP3220520	1 1/2-FB143P-SG3A-2-3.38 (520 RPM)	\$838.00	AP0220520	2-FC145P-SG3A-2-3.38 (520 RPM)	\$882.00
AP3220420	1 1/2-FB143P-DG3A-2-4.13 (420 RPM)	\$943.00	AP0220420	2-FC145P-DG3A-2-4.13 (420 RPM)	\$987.00
AP3220350	1 1/2-FB143P-DG3A-2-5.06 (350 RPM)	\$943.00	AP0220350	2-FC145P-DG3A-2-5.06 (350 RPM)	\$987.00
AP3220280	1 1/2-FB143P-DG3A-2-6.20 (280 RPM)	\$943.00	AP0220280	2-FC145P-DG3A-2-6.20 (280 RPM)	\$987.00
AP3220230	1 1/2-FB143P-DG3A-2-7.59 (230 RPM)	\$943.00	AP0220230	2-FC145P-DG3A-2-7.59 (230 RPM)	\$987.00
AP3220190	1 1/2-FB143P-DG3A-2-9.30 (190 RPM)	\$943.00	AP0220190	2-FC145P-DG3A-2-9.30 (190 RPM)	\$987.00
AP3220155	1 1/2-FB143P-DG3A-2-11.4 (155 RPM)	\$943.00	AP0220155	2-FC145P-DG3A-2-11.4 (155 RPM)	\$987.00
AP3220125	1 1/2-FB143P-DG3A-2-14.0 (125 RPM)	\$943.00	AP0220125	2-FC145P-DG3A-2-14.0 (125 RPM)	\$987.00
AP3220100	1 1/2-FB143P-DG3A-2-17.1 (100 RPM)	\$943.00	AP0220100	2-FC145P-DG3A-2-17.1 (100 RPM)	\$987.00
AP3220084	1 1/2-FB143P-DG3A-2-20.9 (84 RPM)	\$943.00	AP0220084	2-FC145P-DG3A-2-20.9 (84 RPM)	\$987.00
AP3220068	1 1/2-FB143P-DG3A-2-25.6 (68 RPM)	\$943.00	AP0220068	2-FC145P-DG3A-2-25.6 (68 RPM)	\$987.00
AP3220056	1 1/2-FB143P-TG3A-2-31.4 (56 RPM)	\$979.00	AP0220056	2-FC145P-TG4A-2-31.4 (56 RPM)	\$1,541.00
AP3220045	1 1/2-FB143P-TG3A-2-38.4 (45 RPM)	\$979.00	AP0220045	2-FC145P-TG4A-2-38.4 (45 RPM)	\$1,541.00
AP3220037	1 1/2-FB143P-TG4A-2-47.1 (37 RPM)	\$1,497.00	AP0220037	2-FC145P-TG4A-2-47.1 (37 RPM)	\$1,541.00
AP3220030	1 1/2-FB143P-TG4A-2-57.7 (30 RPM)	\$1,497.00	AP0220030	2-FC145P-TG4A-2-57.7 (30 RPM)	\$1,541.00
AP3220025	1 1/2-FB143P-TG5A-2-70.6 (25 RPM)	\$1,497.00	AP0220025	2-FC145P-TG5A-2-70.6 (25 RPM)	\$2,154.00
AP3220020	1 1/2-FB143P-TG5A-2-86.5 (20 RPM)	\$2,110.00	AP0220020	2-FC145P-TG5A-2-86.5 (20 RPM)	\$2,154.00
AP3220016	1 1/2-FB143P-TG5A-2-105.9 (16.5 RPM)	\$2,110.00	AP0220016	2-FC145P-TG5A-2-105.9 (16.5 RPM)	\$2,154.00
AP3220013	1 1/2-FB143P-TG5A-2-129.7 (13.5 RPM)	\$2,110.00	AP0220013	2-FC145P-TG6A-2-129.7 (13.5 RPM)	\$3,208.00
AP3231430	1 1/2-FB143P-SG3A-3-1.22 (1430 RPM)	\$838.00	AP0231430	2-FC145P-SG3A-3-1.22 (1430 RPM)	\$882.00
AP3231170	1 1/2-FB143P-SG3A-3-1.50 (1170 RPM)	\$838.00	AP0231170	2-FC145P-SG3A-3-1.50 (1170 RPM)	\$882.00
AP3230950	1 1/2-FB143P-SG3A-3-1.84 (950 RPM)	\$838.00	AP0230950	2-FC145P-SG3A-3-1.84 (950 RPM)	\$882.00
AP3230780	1 1/2-FB143P-SG3A-3-2.25 (780 RPM)	\$838.00	AP0230780	2-FC145P-SG3A-3-2.25 (780 RPM)	\$882.00
AP3230640	1 1/2-FB143P-SG3A-3-2.76 (640 RPM)	\$838.00	AP0230640	2-FC145P-SG3A-3-2.76 (640 RPM)	\$882.00
AP3230520	1 1/2-FB143P-SG3A-3-3.38 (520 RPM)	\$838.00	AP0230520	2-FC145P-SG3A-3-3.38 (520 RPM)	\$882.00
AP3230420	1 1/2-FB143P-DG3A-3-4.13 (420 RPM)	\$943.00	AP0230420	2-FC145P-DG3A-3-4.13 (420 RPM)	\$987.00
AP3230350	1 1/2-FB143P-DG3A-3-5.06 (350 RPM)	\$943.00	AP0230350	2-FC145P-DG3A-3-5.06 (350 RPM)	\$987.00
AP3230280	1 1/2-FB143P-DG3A-3-6.20 (280 RPM)	\$943.00	AP0230280	2-FC145P-DG3A-3-6.20 (280 RPM)	\$987.00
AP3230230	1 1/2-FB143P-DG3A-3-7.59 (230 RPM)	\$943.00	AP0230230	2-FC145P-DG3A-3-7.59 (230 RPM)	\$987.00
AP3230190	1 1/2-FB143P-DG3A-3-9.30 (190 RPM)	\$943.00	AP0230190	2-FC145P-DG3A-3-9.30 (190 RPM)	\$987.00
AP3230155	1 1/2-FB143P-DG3A-3-11.4 (155 RPM)	\$943.00	AP0230155	2-FC145P-DG3A-3-11.4 (155 RPM)	\$987.00
AP3230125	1 1/2-FB143P-DG3A-3-14.0 (125 RPM)	\$943.00	AP0230125	2-FC145P-DG3A-3-14.0 (125 RPM)	\$987.00
AP3230100	1 1/2-FB143P-DG3A-3-17.1 (100 RPM)	\$943.00	AP0230100	2-FC145P-DG3A-3-17.1 (100 RPM)	\$987.00
AP3230084	1 1/2-FB143P-DG3A-3-20.9 (84 RPM)	\$943.00	AP0230084	2-FC145P-DG4A-3-20.9 (84 RPM)	\$1,417.00
AP3230068	1 1/2-FB143P-DG3A-3-25.6 (68 RPM)	\$943.00	AP0230068	2-FC145P-DG4A-3-25.6 (68 RPM)	\$1,417.00
AP3230056	1 1/2-FB143P-TG4A-3-31.4 (56 RPM)	\$1,497.00	AP0230056	2-FC145P-TG4A-3-31.4 (56 RPM)	\$1,541.00
AP3230045	1 1/2-FB143P-TG4A-3-38.4 (45 RPM)	\$1,497.00	AP0230045	2-FC145P-TG5A-3-38.4 (45 RPM)	\$2,154.00
AP3230037	1 1/2-FB143P-TG4A-3-47.1 (37 RPM)	\$1,497.00	AP0230037	2-FC145P-TG5A-3-47.1 (37 RPM)	\$2,154.00
AP3230030	1 1/2-FB143P-TG5A-3-57.7 (30 RPM)	\$2,110.00	AP0230030	2-FC145P-TG5A-3-57.7 (30 RPM)	\$2,154.00
AP3230025	1 1/2-FB143P-TG5A-3-70.6 (25 RPM)	\$2,110.00	AP0230025	2-FC145P-TG5A-3-70.6 (25 RPM)	\$2,154.00
AP3230020	1 1/2-FB143P-TG5A-3-86.5 (20 RPM)	\$2,110.00	AP0230020	2-FC145P-TG5A-3-86.5 (20 RPM)	\$2,154.00
AP3230016	1 1/2-FB143P-TG5A-3-105.9 (16.5 RPM)	\$2,110.00	AP0230016	2-FC145P-TG6A-3-105.9 (16.5 RPM)	\$3,208.00
AP3230013	1 1/2-FB143P-TG6A-3-129.7 (13.5 RPM)	\$3,164.00	AP0230013	2-FC145P-TG6A-3-129.7 (13.5 RPM)	\$3,208.00



# DODGE APG Integral Gearmotor Model Numbers

Model #	Description	List Price	Model #	Description	List Price
AP0311430	3-FE146P SG3A-1-1.22 (1430 RPM)	\$976.00	AP0511430	5-FE147P SG3A-1-1.22 (1430 RPM)	\$1,082.00
AP0311170	3-FE146P SG3A-1-1.50 (1170 RPM)	\$976.00	AP0511170	5-FE147P SG3A-1-1.50 (1170 RPM)	\$1,082.00
AP0310950	3-FE146P SG3A-1-1.84 (950 RPM)	\$976.00	AP0510950	5-FE147P SG3A-1-1.84 (950 RPM)	\$1,082.00
AP0310780	3-FE146P SG3A-1-2.25 (780 RPM)	\$976.00	AP0510780	5-FE147P SG3A-1-2.25 (780 RPM)	\$1,082.00
AP0310640	3-FE146P SG3A-1-2.76 (640 RPM)	\$976.00	AP0510640	5-FE147P SG3A-1-2.76 (640 RPM)	\$1,082.00
AP0310520	3-FE146P SG3A-1-3.38 (520 RPM)	\$976.00	AP0510520	5-FE147P SG4A-1-3.38 (520 RPM)	\$1,474.00
AP0310420	3-FE146P DG3A-1-4.13 (420 RPM)	\$1,081.00	AP0510420	5-FE147P DG3A-1-4.13 (420 RPM)	\$1,187.00
AP0310350	3-FE146P DG3A-1-5.06 (350 RPM)	\$1,081.00	AP0510350	5-FE147P DG3A-1-5.06 (350 RPM)	\$1,187.00
AP0310280	3-FE146P DG3A-1-6.20 (280 RPM)	\$1,081.00	AP0510280	5-FE147P DG3A-1-6.20 (280 RPM)	\$1,187.00
AP0310230	3-FE146P DG3A-1-7.59 (230 RPM)	\$1,081.00	AP0510230	5-FE147P DG3A-1-7.59 (230 RPM)	\$1,187.00
AP0310190	3-FE146P DG3A-1-9.30 (190 RPM)	\$1,081.00	AP0510190	5-FE147P DG3A-1-9.30 (190 RPM)	\$1,187.00
AP0310155	3-FE146P DG3A-1-11.4 (155 RPM)	\$1,081.00	AP0510155	5-FE147P DG3A-1-11.4 (155 RPM)	\$1,187.00
AP0310125	3-FE146P DG3A-1-14.0 (125 RPM)	\$1,081.00	AP0510125	5-FE147P DG3A-1-14.0 (125 RPM)	\$1,187.00
AP0310100	3-FE146P DG3A-1-17.1 (100 RPM)	\$1,081.00	AP0510100	5-FE147P DG4A-1-17.1 (100 RPM)	\$1,617.00
AP0310084	3-FE146P DG3A-1-20.9 (84 RPM)	\$1,081.00	AP0510084	5-FE147P DG4A-1-20.9 (84 RPM)	\$1,617.00
AP0310068	3-FE146P DG3A-1-25.6 (68 RPM)	\$1,081.00	AP0510068	5-FE147P DG5A-1-25.6 (68 RPM)	\$2,164.00
AP0310056	3-FE146P TG4A-1-31.4 (56 RPM)	\$1,635.00	AP0510056	5-FE147P TG5A-1-31.4 (56 RPM)	\$2,354.00
AP0310045	3-FE146P TG4A-1-38.4 (45 RPM)	\$1,635.00	AP0510045	5-FE147P TG5A-1-38.4 (45 RPM)	\$2,354.00
AP0310037	3-FE146P TG4A-1-47.1 (37 RPM)	\$1,635.00	AP0510037	5-FE147P TG5A-1-47.1 (37 RPM)	\$2,354.00
AP0310030	3-FE146P TG5A-1-57.7 (30 RPM)	\$2,248.00	AP0510030	5-FE147P TG5A-1-57.7 (30 RPM)	\$2,354.00
AP0310025	3-FE146P TG5A-1-70.6 (25 RPM)	\$2,248.00	AP0510025	5-FE147P TG6A-1-70.6 (25 RPM)	\$3,408.00
AP0310020	3-FE146P TG6A-1-86.5 (20 RPM)	\$2,248.00	AP0510020	5-FE147P TG6A-1-86.5 (20 RPM)	\$3,408.00
AP0310016	3-FE146P TG6A-1-105.9 (16.5 RPM)	\$3,302.00	AP0510016	5-FE147P TG6A-1-105.9 (16.5 RPM)	\$3,408.00
AP0310013	3-FE146P TG6A-1-129.7 (13.5 RPM)	\$3,302.00	AP0510013	5-FE147P TG6A-1-129.7 (13.5 RPM)	\$3,408.00
AP0321430	3-FE146P SG3A-2-1.22 (1430 RPM)	\$976.00	AP0521430	5-FE147P SG3A-2-1.22 (1430 RPM)	\$1,082.00
AP0321170	3-FE146P SG3A-2-1.50 (1170 RPM)	\$976.00	AP0521170	5-FE147P SG3A-2-1.50 (1170 RPM)	\$1,082.00
AP0320950	3-FE146P SG3A-2-1.84 (950 RPM)	\$976.00	AP0520950	5-FE147P SG3A-2-1.84 (950 RPM)	\$1,082.00
AP0320780	3-FE146P SG3A-2-2.25 (780 RPM)	\$976.00	AP0520780	5-FE147P SG3A-2-2.25 (780 RPM)	\$1,082.00
AP0320640	3-FE146P SG3A-2-2.76 (640 RPM)	\$976.00	AP0520640	5-FE147P SG4A-2-2.76 (640 RPM)	\$1,474.00
AP0320520	3-FE146P SG3A-2-3.38 (520 RPM)	\$976.00	AP0520520	5-FE147P SG4A-2-3.38 (520 RPM)	\$1,474.00
AP0320420	3-FE146P DG3A-2-4.13 (420 RPM)	\$1,081.00	AP0520420	5-FE147P DG3A-2-4.13 (420 RPM)	\$1,187.00
AP0320350	3-FE146P DG3A-2-5.06 (350 RPM)	\$1,081.00	AP0520350	5-FE147P DG3A-2-5.06 (350 RPM)	\$1,187.00
AP0320280	3-FE146P DG3A-2-6.20 (280 RPM)	\$1,081.00	AP0520280	5-FE147P DG3A-2-6.20 (280 RPM)	\$1,187.00
AP0320230	3-FE146P DG3A-2-7.59 (230 RPM)	\$1,081.00	AP0520230	5-FE147P DG3A-2-7.59 (230 RPM)	\$1,187.00
AP0320190	3-FE146P DG3A-2-9.30 (190 RPM)	\$1,081.00	AP0520190	5-FE147P DG3A-2-9.30 (190 RPM)	\$1,187.00
AP0320155	3-FE146P DG3A-2-11.4 (155 RPM)	\$1,081.00	AP0520155	5-FE147P DG3A-2-11.4 (155 RPM)	\$1,187.00
AP0320125	3-FE146P DG3A-2-14.0 (125 RPM)	\$1,081.00	AP0520125	5-FE147P DG4A-2-14.0 (125 RPM)	\$1,617.00
AP0320100	3-FE146P DG3A-2-17.1 (100 RPM)	\$1,081.00	AP0520100	5-FE147P DG4A-2-17.1 (100 RPM)	\$1,617.00
AP0320084	3-FE146P DG4A-2-20.9 (84 RPM)	\$1,511.00	AP0520084	5-FE147P DG4A-2-20.9 (84 RPM)	\$1,617.00
AP0320068	3-FE146P DG4A-2-25.6 (68 RPM)	\$1,511.00	AP0520068	5-FE147P DG5A-2-25.6 (68 RPM)	\$2,164.00
AP0320056	3-FE146P TG4A-2-31.4 (56 RPM)	\$1,635.00	AP0520056	5-FE147P TG5A-2-31.4 (56 RPM)	\$2,354.00
AP0320045	3-FE146P TG5A-2-38.4 (45 RPM)	\$2,248.00	AP0520045	5-FE147P TG5A-2-38.4 (45 RPM)	\$2,354.00
AP0320037	3-FE146P TG5A-2-47.1 (37 RPM)	\$2,248.00	AP0520037	5-FE147P TG6A-2-47.1 (37 RPM)	\$3,408.00
AP0320030	3-FE146P TG6A-2-57.7 (30 RPM)	\$2,248.00	AP0520030	5-FE147P TG6A-2-57.7 (30 RPM)	\$3,408.00
AP0320025	3-FE146P TG6A-2-70.6 (25 RPM)	\$2,248.00	AP0520025	5-FE147P TG6A-2-70.6 (25 RPM)	\$3,408.00
AP0320020	3-FE146P TG6A-2-86.5 (20 RPM)	\$3,302.00	AP0520020	5-FE147P TG6A-2-86.5 (20 RPM)	\$3,408.00
AP0320016	3-FE146P TG6A-2-105.9 (16.5 RPM)	\$3,302.00	5-184TY-TG7A-2-105.9 (16.5 RPM)	\$5,461.00	
AP0320013	3-FE146P TG6A-2-129.7 (13.5 RPM)	\$3,302.00	AP0520013	5-184TY-TG7A-2-129.7 (13.5 RPM)	\$5,461.00
AP0331430	3-FE146P SG3A-3-1.22 (1430 RPM)	\$976.00	AP0531430	5-FE147P SG3A-3-1.22 (1430 RPM)	\$1,082.00
AP0331170	3-FE146P SG3A-3-1.50 (1170 RPM)	\$976.00	AP0531170	5-FE147P SG3A-3-1.50 (1170 RPM)	\$1,082.00
AP0330950	3-FE146P SG3A-3-1.84 (950 RPM)	\$976.00	AP0530950	5-FE147P SG4A-3-1.84 (950 RPM)	\$1,474.00
AP0330780	3-FE146P SG3A-3-2.25 (780 RPM)	\$976.00	AP0530780	5-FE147P SG4A-3-2.25 (780 RPM)	\$1,474.00
AP0330640	3-FE146P SG4A-3-2.76 (640 RPM)	\$1,368.00	AP0530640	5-FE147P SG4A-3-2.76 (640 RPM)	\$1,474.00
AP0330520	3-FE146P SG4A-3-3.38 (520 RPM)	\$1,368.00	AP0530520	5-FE147P SG5A-3-3.38 (520 RPM)	\$1,954.00
AP0330420	3-FE146P DG3A-3-4.13 (420 RPM)	\$1,081.00	AP0530420	5-FE147P DG3A-3-4.13 (420 RPM)	\$1,187.00
AP0330350	3-FE146P DG3A-3-5.06 (350 RPM)	\$1,081.00	AP0530350	5-FE147P DG3A-3-5.06 (350 RPM)	\$1,187.00
AP0330280	3-FE146P DG3A-3-6.20 (280 RPM)	\$1,081.00	AP0530280	5-FE147P DG3A-3-6.20 (280 RPM)	\$1,187.00
AP0330230	3-FE146P DG3A-3-7.59 (230 RPM)	\$1,081.00	AP0530230	5-FE147P DG3A-3-7.59 (230 RPM)	\$1,187.00
AP0330190	3-FE146P DG3A-3-9.30 (190 RPM)	\$1,081.00	AP0530190	5-FE147P DG4A-3-9.30 (190 RPM)	\$1,617.00
AP0330155	3-FE146P DG3A-3-11.4 (155 RPM)	\$1,081.00	AP0530155	5-FE147P DG4A-3-11.4 (155 RPM)	\$1,617.00
AP0330125	3-FE146P DG4A-3-14.0 (125 RPM)	\$1,511.00	AP0530125	5-FE147P DG4A-3-14.0 (125 RPM)	\$1,617.00
AP0330100	3-FE146P DG4A-3-17.1 (100 RPM)	\$1,511.00	AP0530100	5-FE147P DG5A-3-17.1 (100 RPM)	\$2,164.00
AP0330084	3-FE146P DG4A-3-20.9 (84 RPM)	\$1,511.00	AP0530084	5-FE147P DG5A-3-20.9 (84 RPM)	\$2,164.00
AP0330068	3-FE146P DG5A-3-25.6 (68 RPM)	\$2,058.00	AP0530068	5-FE147P DG5A-3-25.6 (68 RPM)	\$2,164.00
AP0330056	3-FE146P TG5A-3-31.4 (56 RPM)	\$2,245.00	AP0530056	5-FE147P TG6A-3-31.4 (56 RPM)	\$3,408.00
AP0330045	3-FE146P TG6A-3-38.4 (45 RPM)	\$2,245.00	AP0530045	5-FE147P TG6A-3-38.4 (45 RPM)	\$3,408.00
AP0330037	3-FE146P TG6A-3-47.1 (37 RPM)	\$2,245.00	AP0530037	5-FE147P TG6A-3-47.1 (37 RPM)	\$3,408.00
AP0330030	3-FE146P TG6A-3-57.7 (30 RPM)	\$3,302.00	AP0530030	5-FE147P TG6A-3-57.7 (30 RPM)	\$3,408.00
AP0330025	3-FE146P TG6A-3-70.6 (25 RPM)	\$3,302.00	AP0530025	5-184TY-TG7A-3-70.6 (25 RPM)	\$5,461.00
AP0330020	3-FE146P TG6A-3-86.5 (20 RPM)	\$3,302.00	AP0530020	5-184TY-TG7A-3-86.5 (20 RPM)	\$5,461.00
AP0330016	3-FE146P TG6A-3-105.9 (16.5 RPM)	\$3,302.00	AP0530016	5-184TY-TG7A-3-105.9 (16.5 RPM)	\$5,461.00
AP0330013	3-184TY-TG7A-3-129.7 (13.5 RPM)	\$5,416.00	AP0530013	5-184TY-TG7A-3-129.7 (13.5 RPM)	\$5,461.00



# APG Gearmotor Part Numbers

Model #	Description	List Price	Model #	Description	List Price
AP0811430	7 1/2-184TY-SG3A-1-1.22 (1430 RPM)	\$1,474.00	AP1011430	10-210TY-SG3A-1-1.22 (1430 RPM)	\$1,592.00
AP0811170	7 1/2-184TY-SG3A-1-1.50 (1170 RPM)	\$1,474.00	AP1011170	10-210TY-SG3A-1-1.50 (1170 RPM)	\$1,592.00
AP0810950	7 1/2-184TY-SG4A-1-1.84 (950 RPM)	\$1,474.00	AP1010950	10-210TY-SG4A-1-1.84 (950 RPM)	\$1,984.00
AP0810780	7 1/2-184TY-SG4A-1-2.25 (780 RPM)	\$1,866.00	AP1010780	10-210TY-SG4A-1-2.25 (780 RPM)	\$1,984.00
AP0810640	7 1/2-184TY-SG4A-1-2.76 (640 RPM)	\$1,866.00	AP1010640	10-210TY-SG4A-1-2.76 (640 RPM)	\$1,984.00
AP0810520	7 1/2-184TY-SG4A-1-3.38 (520 RPM)	\$1,866.00	AP1010520	10-210TY-SG5A-1-3.38 (520 RPM)	\$2,464.00
AP0810420	7 1/2-184TY-SG4A-1-4.13 (420 RPM)	\$1,579.00	AP1010420	10-210TY-SG4A-1-4.13 (420 RPM)	\$1,697.00
AP0810350	7 1/2-184TY-DG3A-1-5.06 (350 RPM)	\$1,579.00	AP1010350	10-210TY-DG3A-1-5.06 (350 RPM)	\$1,697.00
AP0810280	7 1/2-184TY-DG3A-1-6.20 (280 RPM)	\$1,579.00	AP1010280	10-210TY-DG3A-1-6.20 (280 RPM)	\$1,697.00
AP0810230	7 1/2-184TY-DG3A-1-7.59 (230 RPM)	\$1,579.00	AP1010230	10-210TY-DG3A-1-7.59 (230 RPM)	\$1,697.00
AP0810190	7 1/2-184TY-DG3A-1-9.30 (190 RPM)	\$1,579.00	AP1010190	10-210TY-DG4A-1-9.30 (190 RPM)	\$2,127.00
AP0810155	7 1/2-184TY-DG4A-1-11.4 (155 RPM)	\$2,009.00	AP1010155	10-210TY-DG4A-1-11.4 (155 RPM)	\$2,127.00
AP0810125	7 1/2-184TY-DG4A-1-14.0 (125 RPM)	\$2,009.00	AP1010125	10-210TY-DG4A-1-14.0 (125 RPM)	\$2,127.00
AP0810100	7 1/2-184TY-DG4A-1-17.1 (100 RPM)	\$2,009.00	AP1010100	10-210TY-DG5A-1-17.1 (100 RPM)	\$2,674.00
AP0810084	7 1/2-184TY-DG5A-1-20.9 (84 RPM)	\$2,556.00	AP1010084	10-210TY-DG5A-1-20.9 (84 RPM)	\$2,674.00
AP0810068	7 1/2-184TY-DG5A-1-25.6 (68 RPM)	\$2,556.00	AP1010068	10-210TY-DG5A-1-25.6 (68 RPM)	\$2,674.00
AP0810056	7 1/2-184TY-TG6A-1-31.4 (56 RPM)	\$2,746.00	AP1010056	10-210TY-TG6A-1-31.4 (56 RPM)	\$3,918.00
AP0810045	7 1/2-184TY-TG6A-1-38.4 (45 RPM)	\$3,800.00	AP1010045	10-210TY-TG6A-1-38.4 (45 RPM)	\$3,918.00
AP0810037	7 1/2-184TY-TG6A-1-47.1 (37 RPM)	\$3,800.00	AP1010037	10-210TY-TG6A-1-47.1 (37 RPM)	\$3,918.00
AP0810030	7 1/2-184TY-TG6A-1-57.7 (30 RPM)	\$3,800.00	AP1010030	10-210TY-TG6A-1-57.7 (30 RPM)	\$3,918.00
AP0810025	7 1/2-184TY-TG6A-1-70.6 (25 RPM)	\$3,800.00	AP1010025	10-210TY-TG7A-1-70.6 (25 RPM)	\$5,624.00
AP0810020	7 1/2-184TY-TG7A-1-86.5 (20 RPM)	\$5,506.00	AP1010020	10-210TY-TG7A-1-86.5 (20 RPM)	\$5,624.00
AP0810016	7 1/2-184TY-TG7A-1-105.9 (16.5 RPM)	\$5,506.00	AP1010016	10-210TY-TG7A-1-105.9 (16.5 RPM)	\$5,624.00
AP0810013	7 1/2-184TY-TG7A-1-129.7 (13.5 RPM)	\$5,506.00	AP1010013	10-210TY-TG7A-1-129.7 (13.5 RPM)	\$5,624.00
AP0821430	7 1/2-184TY-SG3A-2-1.22 (1430 RPM)	\$1,474.00	AP1021430	10-210TY-SG4A-2-1.22 (1430 RPM)	\$1,984.00
AP0821170	7 1/2-184TY-SG3A-2-1.50 (1170 RPM)	\$1,474.00	AP1021170	10-210TY-SG4A-2-1.50 (1170 RPM)	\$1,984.00
AP0820950	7 1/2-184TY-SG4A-2-1.84 (950 RPM)	\$1,866.00	AP1020950	10-210TY-SG4A-2-1.84 (950 RPM)	\$1,984.00
AP0820780	7 1/2-184TY-SG4A-2-2.25 (780 RPM)	\$1,866.00	AP1020780	10-210TY-SG4A-2-2.25 (780 RPM)	\$2,464.00
AP0820640	7 1/2-184TY-SG4A-2-2.76 (640 RPM)	\$1,866.00	AP1020640	10-210TY-SG5A-2-2.76 (640 RPM)	\$2,464.00
AP0820520	7 1/2-184TY-SG5A-2-3.38 (520 RPM)	\$2,346.00	AP1020520	10-210TY-SG5A-2-3.38 (520 RPM)	\$2,464.00
AP0820420	7 1/2-184TY-DG4A-2-4.13 (420 RPM)	\$1,579.00	AP1020420	10-210TY-DG4A-2-4.13 (420 RPM)	\$2,127.00
AP0820350	7 1/2-184TY-DG3A-2-5.06 (350 RPM)	\$1,579.00	AP1020350	10-210TY-DG4A-2-5.06 (350 RPM)	\$2,127.00
AP0820280	7 1/2-184TY-DG4A-2-6.20 (280 RPM)	\$1,579.00	AP1020280	10-210TY-DG4A-2-6.20 (280 RPM)	\$2,127.00
AP0820230	7 1/2-184TY-DG4A-2-7.59 (230 RPM)	\$2,009.00	AP1020230	10-210TY-DG4A-2-7.59 (230 RPM)	\$2,127.00
AP0820190	7 1/2-184TY-DG4A-2-9.30 (190 RPM)	\$2,009.00	AP1020190	10-210TY-DG4A-2-9.30 (190 RPM)	\$2,127.00
AP0820155	7 1/2-184TY-DG4A-2-11.4 (155 RPM)	\$2,009.00	AP1020155	10-210TY-DG5A-2-11.4 (155 RPM)	\$2,674.00
AP0820125	7 1/2-184TY-DG4A-2-14.0 (125 RPM)	\$2,009.00	AP1020125	10-210TY-DG5A-2-14.0 (125 RPM)	\$2,674.00
AP0820100	7 1/2-184TY-DG5A-2-17.1 (100 RPM)	\$2,556.00	AP1020100	10-210TY-DG5A-2-17.1 (100 RPM)	\$2,674.00
AP0820084	7 1/2-184TY-DG5A-2-20.9 (84 RPM)	\$2,556.00	AP1020084	10-210TY-DG5A-2-20.9 (84 RPM)	\$2,674.00
AP0820068	7 1/2-184TY-DG5A-2-25.6 (68 RPM)	\$2,556.00	AP1020068	10-210TY-DG6A-2-25.6 (68 RPM)	\$3,654.00
AP0820056	7 1/2-184TY-TG6A-2-31.4 (56 RPM)	\$3,800.00	AP1020056	10-210TY-TG6A-2-31.4 (56 RPM)	\$3,918.00
AP0820045	7 1/2-184TY-TG6A-2-38.4 (45 RPM)	\$3,800.00	AP1020045	10-210TY-TG6A-2-38.4 (45 RPM)	\$3,918.00
AP0820037	7 1/2-184TY-TG6A-2-47.1 (37 RPM)	\$3,800.00	AP1020037	10-210TY-TG7A-2-47.1 (37 RPM)	\$5,624.00
AP0820030	7 1/2-184TY-TG6A-2-57.7 (30 RPM)	\$3,800.00	AP1020030	10-210TY-TG7A-2-57.7 (30 RPM)	\$5,624.00
AP0820025	7 1/2-184TY-TG7A-2-70.6 (25 RPM)	\$5,506.00	AP1020025	10-210TY-TG7A-2-70.6 (25 RPM)	\$5,624.00
AP0820020	7 1/2-184TY-TG7A-2-86.5 (20 RPM)	\$5,506.00	AP1020020	10-210TY-TG7A-2-86.5 (20 RPM)	\$5,624.00
AP0820016	7 1/2-184TY-TG7A-2-105.9 (16.5 RPM)	\$5,506.00	AP1020016	10-210TY-TG8A-2-105.9 (16.5 RPM)	\$11,309.00
AP0820013	7 1/2-184TY-TG7A-2-129.7 (13.5 RPM)	\$5,506.00	AP1020013	10-210TY-TG8A-2-129.7 (13.5 RPM)	\$11,309.00
AP0831430	7 1/2-184TY-SG4A-3-1.22 (1430 RPM)	\$1,866.00	AP1031430	10-210TY-SG4A-3-1.22 (1430 RPM)	\$1,984.00
AP0831170	7 1/2-184TY-SG4A-3-1.50 (1170 RPM)	\$1,866.00	AP1031170	10-210TY-SG4A-3-1.50 (1170 RPM)	\$1,984.00
AP0830950	7 1/2-184TY-SG5A-3-1.84 (950 RPM)	\$2,346.00	AP1030950	10-210TY-SG5A-3-1.84 (950 RPM)	\$2,464.00
AP0830780	7 1/2-184TY-SG5A-3-2.25 (780 RPM)	\$2,346.00	AP1030780	10-210TY-SG5A-3-2.25 (780 RPM)	\$2,464.00
AP0830640	7 1/2-184TY-SG5A-3-2.76 (640 RPM)	\$2,346.00	AP1030640	10-210TY-SG5A-3-2.76 (640 RPM)	\$2,464.00
AP0830520	7 1/2-184TY-SG5A-3-3.38 (520 RPM)	\$2,346.00	AP1030520	10-210TY-SG6A-3-3.38 (520 RPM)	\$3,289.00
AP0830420	7 1/2-184TY-DG4A-3-4.13 (420 RPM)	\$2,009.00	AP1030420	10-210TY-DG4A-3-4.13 (420 RPM)	\$2,127.00
AP0830350	7 1/2-184TY-DG4A-3-5.06 (350 RPM)	\$2,009.00	AP1030350	10-210TY-DG4A-3-5.06 (350 RPM)	\$2,127.00
AP0830280	7 1/2-184TY-DG4A-3-6.20 (280 RPM)	\$2,009.00	AP1030280	10-210TY-DG4A-3-6.20 (280 RPM)	\$2,127.00
AP0830230	7 1/2-184TY-DG4A-3-7.59 (230 RPM)	\$2,009.00	AP1030230	10-210TY-DG5A-3-7.59 (230 RPM)	\$2,674.00
AP0830190	7 1/2-184TY-DG5A-3-9.30 (190 RPM)	\$2,556.00	AP1030190	10-210TY-DG5A-3-9.30 (190 RPM)	\$2,674.00
AP0830155	7 1/2-184TY-DG5A-3-11.4 (155 RPM)	\$2,556.00	AP1030155	10-210TY-DG5A-3-11.4 (155 RPM)	\$2,674.00
AP0830125	7 1/2-184TY-DG5A-3-14.0 (125 RPM)	\$2,556.00	AP1030125	10-210TY-DG5A-3-14.0 (125 RPM)	\$2,674.00
AP0830100	7 1/2-184TY-DG5A-3-17.1 (100 RPM)	\$2,556.00	AP1030100	10-210TY-DG6A-3-17.1 (100 RPM)	\$3,654.00
AP0830084	7 1/2-184TY-DG6A-3-20.9 (84 RPM)	\$3,536.00	AP1030084	10-210TY-DG6A-3-20.9 (84 RPM)	\$3,654.00
AP0830068	7 1/2-184TY-DG6A-3-25.6 (68 RPM)	\$3,536.00	AP1030068	10-210TY-DG6A-3-25.6 (68 RPM)	\$3,654.00
AP0830056	7 1/2-184TY-TG6A-3-31.4 (56 RPM)	\$3,800.00	AP1030056	10-210TY-TG7A-3-31.4 (56 RPM)	\$5,624.00
AP0830045	7 1/2-184TY-TG7A-3-38.4 (45 RPM)	\$5,506.00	AP1030045	10-210TY-TG7A-3-38.4 (45 RPM)	\$5,624.00
AP0830037	7 1/2-184TY-TG7A-3-47.1 (37 RPM)	\$5,506.00	AP1030037	10-210TY-TG7A-3-47.1 (37 RPM)	\$5,624.00
AP0830030	7 1/2-184TY-TG7A-3-57.7 (30 RPM)	\$5,506.00	AP1030030	10-210TY-TG7A-3-57.7 (30 RPM)	\$5,624.00
AP0830025	7 1/2-184TY-TG7A-3-70.6 (25 RPM)	\$5,506.00	AP1030025	10-210TY-TG8A-3-70.6 (25 RPM)	\$11,309.00
AP0830020	7 1/2-184TY-TG8A-3-86.5 (20 RPM)	\$11,191.00	AP1030020	10-210TY-TG8A-3-86.5 (20 RPM)	\$11,309.00
AP0830016	7 1/2-184TY-TG8A-3-105.9 (16.5 RPM)	\$11,191.00	AP1030016	10-210TY-TG8A-3-105.9 (16.5 RPM)	\$11,309.00
AP0830013	7 1/2-184TY-TG8A-3-129.7 (13.5 RPM)	\$11,191.00	AP1030013	10-210TY-TG8A-3-129.7 (13.5 RPM)	\$11,309.00



# APG Gearmotor Part Numbers

Model #	Description	List Price	Model #	Description	List Price
AP1511430	15-215TY- SG4A-1-1.22 (1430 RPM)	\$2,442.00	AP2011430	20-256TY- SG4A-1-1.22 (1430 RPM)	\$3,140.00
AP1511170	15-215TY- SG4A-1-1.50 (1170 RPM)	\$2,442.00	AP2011170	20-256TY- SG4A-1-1.50 (1170 RPM)	\$3,140.00
AP1510950	15-215TY- SG4A-1-1.84 (950 RPM)	\$2,442.00	AP2010950	20-256TY- SG5A-1-1.84 (950 RPM)	\$3,620.00
AP1510780	15-215TY- SG5A-1-2.25 (780 RPM)	\$2,922.00	AP2010780	20-256TY- SG5A-1-2.25 (780 RPM)	\$3,620.00
AP1510640	15-215TY- SG5A-1-2.76 (640 RPM)	\$2,922.00	AP2010640	20-256TY- SG5A-1-2.76 (640 RPM)	\$3,620.00
AP1510520	15-215TY- SG5A-1-3.38 (520 RPM)	\$2,922.00	AP2010520	20-256TY- SG6A-1-3.38 (520 RPM)	\$4,445.00
AP1510420	15-215TY- DG4A-1-4.13 (420 RPM)	\$2,585.00	AP2010420	20-256TY- DG4A-1-4.13 (420 RPM)	\$3,283.00
AP1510350	15-215TY- DG4A-1-5.06 (350 RPM)	\$2,585.00	AP2010350	20-256TY- DG4A-1-5.06 (350 RPM)	\$3,283.00
AP1510280	15-215TY- DG4A-1-6.20 (280 RPM)	\$2,585.00	AP2010280	20-256TY- DG4A-1-6.20 (280 RPM)	\$3,283.00
AP1510230	15-215TY- DG4A-1-7.59 (230 RPM)	\$2,585.00	AP2010230	20-256TY- DG5A-1-7.59 (230 RPM)	\$3,830.00
AP1510190	15-215TY- DG4A-1-9.30 (190 RPM)	\$2,585.00	AP2010190	20-256TY- DG5A-1-9.30 (190 RPM)	\$3,830.00
AP1510155	15-215TY- DG5A-1-11.4 (155 RPM)	\$3,132.00	AP2010155	20-256TY- DG5A-1-11.4 (155 RPM)	\$3,830.00
AP1510125	15-215TY- DG5A-1-14.0 (125 RPM)	\$3,132.00	AP2010125	20-256TY- DG5A-1-14.0 (125 RPM)	\$3,830.00
AP1510100	15-215TY- DG5A-1-17.1 (100 RPM)	\$3,132.00	AP2010100	20-256TY- DG6A-1-17.1 (100 RPM)	\$4,810.00
AP1510084	15-215TY- DG6A-1-20.9 (84 RPM)	\$4,112.00	AP2010084	20-256TY- DG6A-1-20.9 (84 RPM)	\$4,810.00
AP1510068	15-215TY- DG6A-1-25.6 (68 RPM)	\$4,112.00	AP2010068	20-256TY- DG6A-1-25.6 (68 RPM)	\$4,810.00
AP1510056	15-215TY- TG6A-1-31.4 (56 RPM)	\$4,376.00	AP2010056	20-256TY- TG7A-1-31.4 (56 RPM)	\$6,780.00
AP1510045	15-215TY- TG7A-1-38.4 (45 RPM)	\$6,082.00	AP2010045	20-256TY- TG7A-1-38.4 (45 RPM)	\$6,780.00
AP1510037	15-215TY- TG7A-1-47.1 (37 RPM)	\$6,082.00	AP2010037	20-256TY- TG7A-1-47.1 (37 RPM)	\$6,780.00
AP1510030	15-215TY- TG7A-1-57.7 (30 RPM)	\$6,082.00	AP2010030	20-256TY- TG7A-1-57.7 (30 RPM)	\$6,780.00
AP1510025	15-215TY- TG7A-1-70.6 (25 RPM)	\$6,082.00	AP2010025	20-256TY- TG8A-1-70.6 (25 RPM)	\$12,465.00
AP1510020	15-215TY- TG8A-1-86.5 (20 RPM)	\$11,767.00	AP2010020	20-256TY- TG8A-1-86.5 (20 RPM)	\$12,465.00
AP1510016	15-215TY- TG8A-1-105.9 (16.5 RPM)	\$11,767.00	AP2010016	20-256TY- TG8A-1-105.9 (16.5 RPM)	\$12,465.00
AP1510013	15-215TY- TG8A-1-129.7 (13.5 RPM)	\$11,767.00	AP2010013	20-256TY- TG8A-1-129.7 (13.5 RPM)	\$12,465.00
AP1521430	15-215TY- SG4A-2-1.22 (1430 RPM)	\$2,442.00	AP2021430	20-256TY- SG5A-2-1.22 (1430 RPM)	\$3,620.00
AP1521170	15-215TY- SG5A-2-1.50 (1170 RPM)	\$2,922.00	AP2021170	20-256TY- SG5A-2-1.50 (1170 RPM)	\$3,620.00
AP1520950	15-215TY- SG5A-2-1.84 (950 RPM)	\$2,922.00	AP2020950	20-256TY- SG5A-2-1.84 (950 RPM)	\$3,620.00
AP1520780	15-215TY- SG5A-2-2.25 (780 RPM)	\$2,922.00	AP2020780	20-256TY- SG6A-2-2.25 (780 RPM)	\$4,445.00
AP1520640	15-215TY- SG5A-2-2.76 (640 RPM)	\$2,922.00	AP2020640	20-256TY- SG6A-2-2.76 (640 RPM)	\$4,445.00
AP1520520	15-215TY- SG6A-2-3.38 (520 RPM)	\$3,747.00	AP2020520	20-256TY- SG6A-2-3.38 (520 RPM)	\$4,445.00
AP1520420	15-215TY- DG4A-2-4.13 (420 RPM)	\$2,585.00	AP2020420	20-256TY- DG5A-2-4.13 (420 RPM)	\$3,830.00
AP1520350	15-215TY- DG5A-2-5.06 (350 RPM)	\$3,132.00	AP2020350	20-256TY- DG5A-2-5.06 (350 RPM)	\$3,830.00
AP1520280	15-215TY- DG5A-2-6.20 (280 RPM)	\$3,132.00	AP2020280	20-256TY- DG5A-2-6.20 (280 RPM)	\$3,830.00
AP1520230	15-215TY- DG5A-2-7.59 (230 RPM)	\$3,132.00	AP2020230	20-256TY- DG5A-2-7.59 (230 RPM)	\$3,830.00
AP1520190	15-215TY- DG5A-2-9.30 (190 RPM)	\$3,132.00	AP2020190	20-256TY- DG5A-2-9.30 (190 RPM)	\$3,830.00
AP1520155	15-215TY- DG5A-2-11.4 (155 RPM)	\$3,132.00	AP2020155	20-256TY- DG6A-2-11.4 (155 RPM)	\$4,810.00
AP1520125	15-215TY- DG5A-2-14.0 (125 RPM)	\$3,132.00	AP2020125	20-256TY- DG6A-2-14.0 (125 RPM)	\$4,810.00
AP1520100	15-215TY- DG6A-2-17.1 (100 RPM)	\$4,112.00	AP2020100	20-256TY- DG6A-2-17.1 (100 RPM)	\$4,810.00
AP1520084	15-215TY- DG6A-2-20.9 (84 RPM)	\$4,112.00	AP2020084	20-256TY- DG7A-2-20.9 (84 RPM)	\$6,333.00
AP1520068	15-215TY- DG6A-2-25.6 (68 RPM)	\$4,112.00	AP2020068	20-256TY- DG7A-2-25.6 (68 RPM)	\$6,333.00
AP1520056	15-215TY- TG7A-2-31.4 (56 RPM)	\$6,082.00	AP2020056	20-256TY- TG7A-2-31.4 (56 RPM)	\$6,780.00
AP1520045	15-215TY- TG7A-2-38.4 (45 RPM)	\$6,082.00	AP2020045	20-256TY- TG8A-2-38.4 (45 RPM)	\$12,465.00
AP1520037	15-215TY- TG7A-2-47.1 (37 RPM)	\$6,082.00	AP2020037	20-256TY- TG8A-2-47.1 (37 RPM)	\$12,465.00
AP1520025	15-215TY- TG7A-2-57.7 (30 RPM)	\$6,082.00	AP2020025	20-256TY- TG8A-2-57.7 (30 RPM)	\$12,465.00
AP1520020	15-215TY- TG8A-2-70.6 (25 RPM)	\$11,767.00	AP2020020	20-256TY- TG8A-2-70.6 (25 RPM)	\$12,465.00
AP1520016	15-215TY- TG8A-2-86.5 (20 RPM)	\$11,767.00	AP2020016	20-256TY- TG8A-2-86.5 (20 RPM)	\$12,465.00
AP1531430	15-215TY- SG5A-3-1.22 (1430 RPM)	\$2,922.00	AP2031430	20-256TY- SG5A-3-1.22 (1430 RPM)	\$3,620.00
AP1531170	15-215TY- SG5A-3-1.50 (1170 RPM)	\$2,922.00	AP2031170	20-256TY- SG6A-3-1.50 (1170 RPM)	\$4,445.00
AP1530950	15-215TY- SG5A-3-1.84 (950 RPM)	\$2,922.00	AP2030950	20-256TY- SG6A-3-1.84 (950 RPM)	\$4,445.00
AP1530780	15-215TY- SG6A-3-2.25 (780 RPM)	\$3,747.00	AP2030780	20-256TY- SG6A-3-2.25 (780 RPM)	\$4,445.00
AP1530640	15-215TY- SG6A-3-2.76 (640 RPM)	\$3,747.00	AP2030640	20-256TY- SG7A-3-2.76 (640 RPM)	\$5,740.00
AP1530520	15-215TY- SG6A-3-3.38 (520 RPM)	\$3,747.00	AP2030520	20-256TY- SG7A-3-3.38 (520 RPM)	\$5,740.00
AP1530420	15-215TY- DG5A-3-4.13 (420 RPM)	\$3,132.00	AP2030420	20-256TY- DG5A-3-4.13 (420 RPM)	\$3,830.00
AP1530350	15-215TY- DG5A-3-5.06 (350 RPM)	\$3,132.00	AP2030350	20-256TY- DG6A-3-5.06 (350 RPM)	\$4,810.00
AP1530320	15-215TY- DG5A-3-6.20 (280 RPM)	\$3,132.00	AP2030320	20-256TY- DG6A-3-6.20 (280 RPM)	\$4,810.00
AP1530280	15-215TY- DG5A-3-7.59 (230 RPM)	\$3,132.00	AP2030280	20-256TY- DG6A-3-7.59 (230 RPM)	\$4,810.00
AP1530230	15-215TY- DG5A-3-9.30 (190 RPM)	\$3,132.00	AP2030230	20-256TY- DG6A-3-9.30 (190 RPM)	\$4,810.00
AP1530190	15-215TY- DG6A-3-11.4 (155 RPM)	\$4,112.00	AP2030190	20-256TY- DG6A-3-11.4 (155 RPM)	\$4,810.00
AP1530155	15-215TY- DG6A-3-14.0 (125 RPM)	\$4,112.00	AP2030155	20-256TY- DG7A-3-14.0 (125 RPM)	\$6,333.00
AP1530125	15-215TY- DG6A-3-17.1 (100 RPM)	\$4,112.00	AP2030125	20-256TY- DG7A-3-17.1 (100 RPM)	\$6,333.00
AP1530100	15-215TY- DG7A-3-20.9 (84 RPM)	\$5,635.00	AP2030100	20-256TY- DG7A-3-20.9 (84 RPM)	\$6,333.00
AP1530084	15-215TY- DG7A-3-25.6 (68 RPM)	\$5,635.00	AP2030084	20-256TY- DG7A-3-25.6 (68 RPM)	\$6,333.00
AP1530068	15-215TY- TG7A-3-31.4 (56 RPM)	\$6,082.00	AP2030068	20-256TY- TG8A-3-31.4 (56 RPM)	\$12,465.00
AP1530056	15-215TY- TG8A-3-38.4 (45 RPM)	\$11,767.00	AP2030056	20-256TY- TG8A-3-38.4 (45 RPM)	\$12,465.00
AP1530045	15-215TY- TG8A-3-47.1 (37 RPM)	\$11,767.00	AP2030045	20-256TY- TG8A-3-47.1 (37 RPM)	\$12,465.00
AP1530037	15-215TY- TG8A-3-57.7 (30 RPM)	\$11,767.00	AP2030037	20-256TY- TG8A-3-57.7 (30 RPM)	\$12,465.00
AP1530030	15-215TY- TG8A-3-70.6 (25 RPM)	\$11,767.00	AP2030030	20-256TY- TG8A-3-70.6 (25 RPM)	\$11,767.00
AP1530025	15-215TY- TG8A-3-86.5 (20 RPM)	\$11,767.00			
AP1530020	15-215TY- TG8A-3-86.5 (20 RPM)	\$11,767.00			



# APG Gearmotor Part Numbers

Model #	Description	List Price	Model #	Description	List Price
AP2511430	25-286TY- SG5A-1-1.22 (1430 RPM)	\$3,883.00	AP3011430	30-286TY- SG5A-1-1.22 (1430 RPM)	\$4,024.00
AP2511170	25-286TY- SG5A-1-1.50 (1170 RPM)	\$3,883.00	AP3011170	30-286TY- SG5A-1-1.50 (1170 RPM)	\$4,024.00
AP2510950	25-286TY- SG5A-1-1.84 (950 RPM)	\$3,883.00	AP3010950	30-286TY- SG5A-1-1.84 (950 RPM)	\$4,024.00
AP2510780	25-286TY- SG5A-1-2.25 (780 RPM)	\$3,883.00	AP3010780	30-286TY- SG6A-1-2.25 (780 RPM)	\$4,849.00
AP2510640	25-286TY- SG6A-1-2.76 (640 RPM)	\$4,708.00	AP3010640	30-286TY- SG6A-1-2.76 (640 RPM)	\$4,849.00
AP2510520	25-286TY- SG6A-1-3.38 (520 RPM)	\$4,708.00	AP3010520	30-286TY- SG6A-1-3.38 (520 RPM)	\$4,849.00
AP2510420	25-286TY- DG5A-1-4.13 (420 RPM)	\$4,093.00	AP3010420	30-286TY- DG5A-1-4.13 (420 RPM)	\$4,234.00
AP2510350	25-286TY- DG5A-1-5.06 (350 RPM)	\$4,093.00	AP3010350	30-286TY- DG5A-1-5.06 (350 RPM)	\$4,234.00
AP2510280	25-286TY- DG5A-1-6.20 (280 RPM)	\$4,093.00	AP3010280	30-286TY- DG5A-1-6.20 (280 RPM)	\$4,234.00
AP2510230	25-286TY- DG5A-1-7.59 (230 RPM)	\$4,093.00	AP3010230	30-286TY- DG5A-1-7.59 (230 RPM)	\$4,234.00
AP2510190	25-286TY- DG5A-1-9.30 (190 RPM)	\$4,093.00	AP3010190	30-286TY- DG5A-1-9.30 (190 RPM)	\$4,234.00
AP2510155	25-286TY- DG6A-1-11.4 (155 RPM)	\$4,093.00	AP3010155	30-286TY- DG6A-1-11.4 (155 RPM)	\$5,214.00
AP2510125	25-286TY- DG6A-1-14.0 (125 RPM)	\$5,073.00	AP3010125	30-286TY- DG6A-1-14.0 (125 RPM)	\$5,214.00
AP2510100	25-286TY- DG6A-1-17.1 (100 RPM)	\$5,073.00	AP3010100	30-286TY- DG6A-1-17.1 (100 RPM)	\$5,214.00
AP2510084	25-286TY- DG6A-1-20.9 (84 RPM)	\$5,073.00	AP3010084	30-286TY- DG7A-1-20.9 (84 RPM)	\$6,737.00
AP2510068	25-286TY- DG7A-1-25.6 (68 RPM)	\$6,596.00	AP3010068	30-286TY- DG7A-1-25.6 (68 RPM)	\$6,737.00
AP2510056	25-286TY- TG7A-1-31.4 (56 RPM)	\$7,043.00	AP3010056	30-286TY- TG7A-1-31.4 (56 RPM)	\$7,184.00
AP2510045	25-286TY- TG7A-1-38.4 (45 RPM)	\$7,043.00	AP3010045	30-286TY- TG8A-1-38.4 (45 RPM)	\$12,869.00
AP2510037	25-286TY- TG8A-1-47.1 (37 RPM)	\$12,728.00	AP3010037	30-286TY- TG8A-1-47.1 (37 RPM)	\$12,869.00
AP2510030	25-286TY- TG8A-1-57.7 (30 RPM)	\$12,728.00	AP3010030	30-286TY- TG8A-1-57.7 (30 RPM)	\$12,869.00
AP2510025	25-286TY- TG8A-1-70.6 (25 RPM)	\$12,728.00	AP3010025	30-286TY- TG8A-1-70.6 (25 RPM)	\$12,869.00
AP2510020	25-286TY- TG8A-1-86.5 (20 RPM)	\$12,728.00	AP3021430	30-286TY- SG6A-2-1.22 (1430 RPM)	\$4,849.00
AP2521430	25-286TY- SG5A-2-1.22 (1430 RPM)	\$3,883.00	AP3021170	30-286TY- SG6A-2-1.50 (1170 RPM)	\$4,849.00
AP2521170	25-286TY- SG5A-2-1.50 (1170 RPM)	\$3,883.00	AP3020950	30-286TY- SG6A-2-1.84 (950 RPM)	\$4,849.00
AP2520950	25-286TY- SG6A-2-1.84 (950 RPM)	\$4,708.00	AP3020780	30-286TY- SG6A-2-2.25 (780 RPM)	\$4,849.00
AP2520780	25-286TY- SG6A-2-2.25 (780 RPM)	\$4,708.00	AP3020640	30-286TY- SG7A-2-2.76 (640 RPM)	\$6,144.00
AP2520640	25-286TY- SG6A-2-2.76 (640 RPM)	\$4,708.00	AP3020520	30-286TY- SG7A-2-3.38 (520 RPM)	\$6,144.00
AP2520520	25-286TY- SG7A-2-3.38 (520 RPM)	\$6,003.00	AP3020420	30-286TY- DG6A-2-4.13 (420 RPM)	\$5,214.00
AP2520420	25-286TY- DG5A-2-4.13 (420 RPM)	\$4,093.00	AP3020350	30-286TY- DG6A-2-5.06 (350 RPM)	\$5,214.00
AP2520350	25-286TY- DG5A-2-5.06 (350 RPM)	\$4,093.00	AP3020280	30-286TY- DG6A-2-6.20 (280 RPM)	\$5,214.00
AP2520280	25-286TY- DG5A-2-6.20 (280 RPM)	\$4,093.00	AP3020230	30-286TY- DG6A-2-7.59 (230 RPM)	\$5,214.00
AP2520230	25-286TY- DG5A-2-7.59 (230 RPM)	\$4,093.00	AP3020190	30-286TY- DG6A-2-9.30 (190 RPM)	\$5,214.00
AP2520190	25-286TY- DG6A-2-9.30 (190 RPM)	\$5,073.00	AP3020155	30-286TY- DG6A-2-11.4 (155 RPM)	\$5,214.00
AP2520155	25-286TY- DG6A-2-11.4 (155 RPM)	\$5,073.00	AP3020125	30-286TY- DG7A-2-14.0 (125 RPM)	\$6,737.00
AP2520125	25-286TY- DG6A-2-14.0 (125 RPM)	\$5,073.00	AP3020100	30-286TY- DG7A-2-17.1 (100 RPM)	\$6,737.00
AP2520100	25-286TY- DG7A-2-17.1 (100 RPM)	\$6,596.00	AP3020084	30-286TY- DG7A-2-20.9 (84 RPM)	\$6,737.00
AP2520084	25-286TY- DG7A-2-20.9 (84 RPM)	\$6,596.00	AP3020068	30-286TY- DG7A-2-25.6 (68 RPM)	\$6,737.00
AP2520068	25-286TY- DG7A-2-25.6 (68 RPM)	\$6,596.00	AP3020056	30-286TY- TG8A-2-31.4 (56 RPM)	\$12,869.00
AP2520056	25-286TY- TG8A-2-31.4 (56 RPM)	\$12,728.00	AP3020045	30-286TY- TG8A-2-38.4 (45 RPM)	\$12,869.00
AP2520045	25-286TY- TG8A-2-38.4 (45 RPM)	\$12,728.00	AP3020037	30-286TY- TG8A-2-47.1 (37 RPM)	\$12,869.00
AP2520037	25-286TY- TG8A-2-47.1 (37 RPM)	\$12,728.00	AP3020030	30-286TY- TG8A-2-57.7 (30 RPM)	\$12,869.00
AP2520030	25-286TY- TG8A-2-57.7 (30 RPM)	\$12,728.00	AP3031430	30-286TY- SG6A-3-1.22 (1430 RPM)	\$4,849.00
AP2520025	25-286TY- TG8A-2-70.6 (25 RPM)	\$12,728.00	AP3031170	30-286TY- SG6A-3-1.50 (1170 RPM)	\$4,849.00
AP2531430	25-286TY- SG6A-3-1.22 (1430 RPM)	\$4,708.00	AP3030950	30-286TY- SG7A-3-1.84 (950 RPM)	\$6,144.00
AP2531170	25-286TY- SG6A-3-1.50 (1170 RPM)	\$4,708.00	AP3030780	30-286TY- SG7A-3-2.25 (780 RPM)	\$6,144.00
AP2530950	25-286TY- SG6A-3-1.84 (950 RPM)	\$4,708.00	AP3030640	30-286TY- SG7A-3-2.76 (640 RPM)	\$6,144.00
AP2530780	25-286TY- SG7A-3-2.25 (780 RPM)	\$6,003.00	AP3030520	30-286TY- SG7A-3-3.38 (520 RPM)	\$6,144.00
AP2530640	25-286TY- SG7A-3-2.76 (640 RPM)	\$6,003.00	AP3030420	30-286TY- DG6A-3-4.13 (420 RPM)	\$5,214.00
AP2530520	25-286TY- SG7A-3-3.38 (520 RPM)	\$6,003.00	AP3030350	30-286TY- DG6A-3-5.06 (350 RPM)	\$5,214.00
AP2530420	25-286TY- DG6A-3-4.13 (420 RPM)	\$5,073.00	AP3030280	30-286TY- DG6A-3-6.20 (280 RPM)	\$5,214.00
AP2530350	25-286TY- DG6A-3-5.06 (350 RPM)	\$5,073.00	AP3030230	30-286TY- DG6A-3-7.59 (230 RPM)	\$5,214.00
AP2530280	25-286TY- DG6A-3-6.20 (280 RPM)	\$5,073.00	AP3030190	30-286TY- DG7A-3-9.30 (190 RPM)	\$6,737.00
AP2530230	25-286TY- DG6A-3-7.59 (230 RPM)	\$5,073.00	AP3030155	30-286TY- DG7A-3-11.4 (155 RPM)	\$6,737.00
AP2530190	25-286TY- DG6A-3-9.30 (190 RPM)	\$5,073.00	AP3030125	30-286TY- DG7A-3-14.0 (125 RPM)	\$6,737.00
AP2530155	25-286TY- DG7A-3-11.4 (155 RPM)	\$6,596.00	AP3030100	30-286TY- DG7A-3-17.1 (100 RPM)	\$6,737.00
AP2530125	25-286TY- DG7A-3-14.0 (125 RPM)	\$6,596.00	AP3030084	30-286TY- DG8A-3-20.9 (84 RPM)	\$12,157.00
AP2530100	25-286TY- DG7A-3-17.1 (100 RPM)	\$6,596.00	AP3030056	30-286TY- TG8A-3-31.4 (56 RPM)	\$12,869.00
AP2530084	25-286TY- DG7A-3-20.9 (84 RPM)	\$6,596.00	AP3030045	30-286TY- TG8A-3-38.4 (45 RPM)	\$12,869.00
AP2530068	25-286TY- DG8A-3-25.6 (68 RPM)	\$12,016.00			
AP2530056	25-286TY- TG8A-3-31.4 (56 RPM)	\$12,728.00			
AP2530045	25-286TY- TG8A-3-38.4 (45 RPM)	\$12,728.00			
AP2530037	25-286TY- TG8A-3-47.1 (37 RPM)	\$12,728.00			



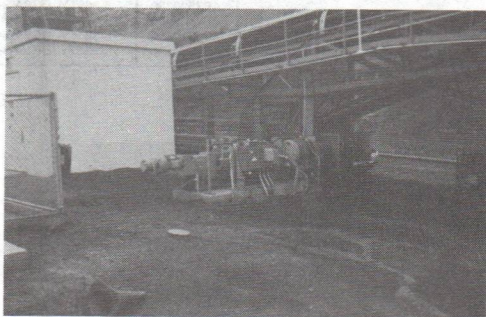
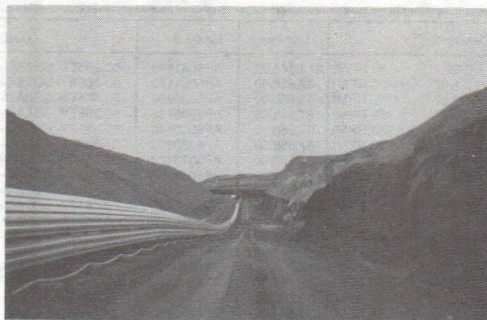
# APG Gearmotor Part Numbers

Model #	Description	List Price	Model #	Description	List Price
AP4011430	40-326TY-SG6A-1-1.22 (1430 RPM)	\$5,492.00	AP5011430	50-326TY-SG7A-1-1.22 (1430 RPM)	\$6,835.00
AP4011170	40-326TY-SG6A-1-1.50 (1170 RPM)	\$5,492.00	AP5011170	50-326TY-SG7A-1-1.50 (1170 RPM)	\$6,835.00
AP4010950	40-326TY-SG6A-1-1.84 (950 RPM)	\$5,492.00	AP5010950	50-326TY-SG7A-1-1.84 (950 RPM)	\$6,835.00
AP4010780	40-326TY-SG6A-1-2.25 (780 RPM)	\$5,492.00	AP5010780	50-326TY-SG7A-1-2.25 (780 RPM)	\$6,835.00
AP4010640	40-326TY-SG7A-1-2.76 (640 RPM)	\$6,787.00	AP5010640	50-326TY-SG7A-1-2.76 (640 RPM)	\$6,835.00
AP4010520	40-326TY-SG7A-1-3.38 (520 RPM)	\$6,787.00	AP5010520	50-326TY-SG7A-1-3.38 (520 RPM)	\$6,835.00
AP4010420	40-326TY-DG6A-1-4.13 (420 RPM)	\$5,857.00	AP5010420	50-326TY-SG7A-1-4.13 (420 RPM)	\$6,835.00
AP4010350	40-326TY-DG6A-1-5.06 (350 RPM)	\$5,857.00	AP5010350	50-326TY-DG7A-1-5.06 (350 RPM)	\$7,428.00
AP4010280	40-326TY-DG6A-1-6.20 (280 RPM)	\$5,857.00	AP5010280	50-326TY-DG7A-1-6.20 (280 RPM)	\$7,428.00
AP4010230	40-326TY-DG6A-1-7.59 (230 RPM)	\$5,857.00	AP5010230	50-326TY-DG7A-1-7.59 (230 RPM)	\$7,428.00
AP4010190	40-326TY-DG6A-1-9.30 (190 RPM)	\$5,857.00	AP5010190	50-326TY-DG7A-1-9.30 (190 RPM)	\$7,428.00
AP4010155	40-326TY-DG6A-1-11.4 (155 RPM)	\$5,857.00	AP5010155	50-326TY-DG7A-1-11.4 (155 RPM)	\$7,428.00
AP4010125	40-326TY-DG7A-1-14.0 (125 RPM)	\$7,380.00	AP5010125	50-326TY-DG7A-1-14.0 (125 RPM)	\$7,428.00
AP4010100	40-326TY-DG7A-1-17.1 (100 RPM)	\$7,380.00	AP5010100	50-326TY-DG7A-1-17.1 (100 RPM)	\$7,428.00
AP4010084	40-326TY-DG7A-1-20.9 (84 RPM)	\$7,380.00	AP5010084	50-326TY-DG7A-1-20.9 (84 RPM)	\$7,428.00
AP4010068	40-326TY-DG7A-1-25.6 (68 RPM)	\$7,380.00	AP5010068	50-326TY-DG8A-1-25.6 (68 RPM)	\$12,848.00
AP4010056	40-326TY-TG8A-1-31.4 (56 RPM)	\$13,512.00	AP5010056	50-326TY-TG8A-1-31.4 (56 RPM)	\$13,560.00
AP4010045	40-326TY-TG8A-1-38.4 (45 RPM)	\$13,512.00	AP5010045	50-326TY-TG8A-1-38.4 (45 RPM)	\$13,560.00
AP4010037	40-326TY-TG8A-1-47.1 (37 RPM)	\$13,512.00	AP5010037	50-326TY-SG7A-2-1.22 (1430 RPM)	\$6,835.00
AP4010030	40-326TY-TG8A-1-57.7 (30 RPM)	\$13,512.00	AP5010030	50-326TY-SG7A-2-1.50 (1170 RPM)	\$6,835.00
AP4021430	40-326TY-SG6A-2-1.22 (1430 RPM)	\$5,492.00	AP5020950	50-326TY-SG7A-2-1.84 (950 RPM)	\$6,835.00
AP4021170	40-326TY-SG6A-2-1.50 (1170 RPM)	\$5,492.00	AP5020780	50-326TY-SG7A-2-2.25 (780 RPM)	\$6,835.00
AP4020950	40-326TY-SG7A-2-1.84 (950 RPM)	\$6,787.00	AP5020640	50-326TY-SG7A-2-2.76 (640 RPM)	\$11,324.00
AP4020780	40-326TY-SG7A-2-2.25 (780 RPM)	\$6,787.00	AP5020520	50-326TY-SG8A-2-3.38 (520 RPM)	\$7,428.00
AP4020640	40-326TY-SG7A-2-2.76 (640 RPM)	\$6,787.00	AP5020420	50-326TY-DG7A-2-4.13 (420 RPM)	\$7,428.00
AP4020520	40-326TY-SG7A-2-3.38 (520 RPM)	\$6,787.00	AP5020350	50-326TY-DG7A-2-5.06 (350 RPM)	\$7,428.00
AP4020420	40-326TY-DG6A-2-4.13 (420 RPM)	\$5,857.00	AP5020280	50-326TY-DG7A-2-6.20 (280 RPM)	\$7,428.00
AP4020350	40-326TY-DG6A-2-5.06 (350 RPM)	\$5,857.00	AP5020230	50-326TY-DG7A-2-7.59 (230 RPM)	\$7,428.00
AP4020280	40-326TY-DG6A-2-6.20 (280 RPM)	\$5,857.00	AP5020190	50-326TY-DG7A-2-9.30 (190 RPM)	\$7,428.00
AP4020230	40-326TY-DG6A-2-7.59 (230 RPM)	\$5,857.00	AP5020155	50-326TY-DG7A-2-11.4 (155 RPM)	\$7,428.00
AP4020190	40-326TY-DG7A-2-9.30 (190 RPM)	\$7,380.00	AP5020125	50-326TY-DG7A-2-14.0 (125 RPM)	\$7,428.00
AP4020155	40-326TY-DG7A-2-11.4 (155 RPM)	\$7,380.00	AP5020100	50-326TY-DG8A-2-17.1 (100 RPM)	\$12,848.00
AP4020125	40-326TY-DG7A-2-14.0 (125 RPM)	\$7,380.00	AP5020084	50-326TY-DG8A-2-20.9 (84 RPM)	\$12,848.00
AP4020100	40-326TY-DG7A-2-17.1 (100 RPM)	\$7,380.00	AP5020068	50-326TY-DG8A-2-25.6 (68 RPM)	\$12,848.00
AP4020084	40-326TY-DG7A-2-20.9 (84 RPM)	\$7,380.00	AP5031430	50-326TY-SG7A-3-1.22 (1430 RPM)	\$6,835.00
AP4020068	40-326TY-DG8A-2-25.6 (68 RPM)	\$12,800.00	AP5031170	50-326TY-SG7A-3-1.50 (1170 RPM)	\$6,835.00
AP4020056	40-326TY-TG8A-2-31.4 (56 RPM)	\$13,512.00	AP5030950	50-326TY-SG8A-3-1.84 (950 RPM)	\$11,324.00
AP4020045	40-326TY-TG8A-2-38.4 (45 RPM)	\$13,512.00	AP5030780	50-326TY-SG8A-3-2.25 (780 RPM)	\$11,324.00
AP4031430	40-326TY-SG7A-3-1.22 (1430 RPM)	\$6,787.00	AP5030640	50-326TY-SG8A-3-2.76 (640 RPM)	\$11,324.00
AP4031170	40-326TY-SG7A-3-1.50 (1170 RPM)	\$6,787.00	AP5030520	50-326TY-SG8A-3-3.38 (520 RPM)	\$7,428.00
AP4030950	40-326TY-SG7A-3-1.84 (950 RPM)	\$6,787.00	AP5030420	50-326TY-DG7A-3-4.13 (420 RPM)	\$7,428.00
AP4030780	40-326TY-SG7A-3-2.25 (780 RPM)	\$6,787.00	AP5030350	50-326TY-DG7A-3-5.06 (350 RPM)	\$7,428.00
AP4030640	40-326TY-SG7A-3-2.76 (640 RPM)	\$6,787.00	AP5030280	50-326TY-DG7A-3-6.20 (280 RPM)	\$7,428.00
AP4030520	40-326TY-SG8A-3-3.38 (520 RPM)	\$11,275.00	AP5030230	50-326TY-DG7A-3-7.59 (230 RPM)	\$7,428.00
AP4030420	40-326TY-DG7A-3-4.13 (420 RPM)	\$7,380.00	AP5030190	50-326TY-DG8A-3-9.30 (190 RPM)	\$12,848.00
AP4030350	40-326TY-DG7A-3-5.06 (350 RPM)	\$7,380.00	AP5030155	50-326TY-DG8A-3-11.4 (155 RPM)	\$12,848.00
AP4030280	40-326TY-DG7A-3-6.20 (280 RPM)	\$7,380.00	AP5030125	50-326TY-DG8A-3-14.0 (125 RPM)	\$12,848.00
AP4030230	40-326TY-DG7A-3-7.59 (230 RPM)	\$7,380.00	AP5030100	50-326TY-DG8A-3-17.1 (100 RPM)	\$12,848.00
AP4030190	40-326TY-DG7A-3-9.30 (190 RPM)	\$7,380.00			
AP4030155	40-326TY-DG7A-3-11.4 (155 RPM)	\$7,380.00			
AP4030125	40-326TY-DG7A-3-14.0 (125 RPM)	\$7,380.00			
AP4030100	40-326TY-DG8A-3-17.1 (100 RPM)	\$12,800.00			
AP4030084	40-326TY-DG8A-3-20.9 (84 RPM)	\$12,800.00			

# APG Gearmotor Part Numbers

Model #	Description	List Price	Model #	Description	List Price
AP5030084	50-326TY- DG8A-3-20.9 ( 84 RPM)	\$12,848.00	AP6031430	60-365TY- SG7A-3-1.22 (1430 RPM)	\$7,658.00
AP6011430	60-365TY- SG7A-1-1.22 (1430 RPM)	\$7,658.00	AP6031170	60-365TY- SG7A-3-1.50 (1170 RPM)	\$7,658.00
AP6011170	60-365TY- SG7A-1-1.50 (1170 RPM)	\$7,658.00	AP6030950	60-365TY- SG8A-3-1.84 (950 RPM)	\$12,147.00
AP6010950	60-365TY- SG7A-1-1.84 (950 RPM)	\$7,658.00	AP6030780	60-365TY- SG8A-3-2.25 (780 RPM)	\$12,147.00
AP6010780	60-365TY- SG7A-1-2.25 (780 RPM)	\$7,658.00	AP6030640	60-365TY- SG8A-3-2.76 (640 RPM)	\$12,147.00
AP6010640	60-365TY- SG7A-1-2.76 (640 RPM)	\$7,658.00	AP6030520	60-365TY- SG8A-3-3.38 (520 RPM)	\$12,147.00
AP6010520	60-365TY- SG7A-1-3.38 (520 RPM)	\$7,658.00	AP6030420	60-365TY- DG7A-3-4.13 (420 RPM)	\$8,251.00
AP6010420	60-365TY- DG7A-1-4.13 (420 RPM)	\$8,251.00	AP6030350	60-365TY- DG7A-3-5.06 (350 RPM)	\$8,251.00
AP6010350	60-365TY- DG7A-1-5.06 (350 RPM)	\$8,251.00	AP6030280	60-365TY- DG7A-3-6.20 (280 RPM)	\$8,251.00
AP6010280	60-365TY- DG7A-1-6.20 (280 RPM)	\$8,251.00	AP6030230	60-365TY- DG7A-3-7.59 (230 RPM)	\$8,251.00
AP6010230	60-365TY- DG7A-1-7.59 (230 RPM)	\$8,251.00	AP6030190	60-365TY- DG8A-3-9.30 (190 RPM)	\$13,761.00
AP6010190	60-365TY- DG7A-1-9.30 (190 RPM)	\$8,251.00	AP6030155	60-365TY- DG8A-3-11.4 (155 RPM)	\$13,761.00
AP6010155	60-365TY- DG7A-1-11.4 (155 RPM)	\$8,251.00	AP6030125	60-365TY- DG8A-3-14.0 (125 RPM)	\$13,761.00
AP6010125	60-365TY- DG7A-1-14.0 (125 RPM)	\$8,251.00	AP6030100	60-365TY- DG8A-3-17.1 (100 RPM)	\$13,761.00
AP6010100	60-365TY- DG7A-1-17.1 (100 RPM)	\$8,251.00	AP7511170	75-365TY- SG7A-1-1.50 (1170 RPM)	\$8,470.00
AP6010084	60-365TY- DG8A-1-20.9 ( 84 RPM)	\$13,671.00	AP7510950	75-365TY- SG7A-1-1.84 (950 RPM)	\$8,470.00
AP6010068	60-365TY- DG8A-1-25.6 ( 68 RPM)	\$13,671.00	AP7510780	75-365TY- SG7A-1-2.25 (780 RPM)	\$8,470.00
AP6010056	60-365TY- TG8A-1-31.4 ( 56 RPM)	\$14,383.00	AP7510640	75-365TY- SG7A-1-2.76 (640 RPM)	\$8,470.00
AP6021430	60-365TY- SG7A-2-1.22 (1430 RPM)	\$7,658.00	AP7510520	75-365TY- SG8A-1-3.38 (520 RPM)	\$12,959.00
AP6021170	60-365TY- SG7A-2-1.50 (1170 RPM)	\$7,658.00	AP7510420	75-365TY- SG8A-1-4.13 (420 RPM)	\$12,959.00
AP6020950	60-365TY- SG7A-2-1.84 (950 RPM)	\$7,658.00	AP7510350	75-365TY- SG8A-1-5.06 (350 RPM)	\$12,959.00
AP6020780	60-365TY- SG7A-2-2.25 (780 RPM)	\$7,658.00	AP7510230	75-365TY- DG7A-1-7.59 (230 RPM)	\$9,063.00
AP6020640	60-365TY- SG8A-2-2.76 (640 RPM)	\$12,147.00	AP7510190	75-365TY- DG7A-1-9.30 (190 RPM)	\$9,063.00
AP6020520	60-365TY- SG8A-2-3.38 (520 RPM)	\$12,147.00	AP7510155	75-365TY- DG7A-1-11.4 (155 RPM)	\$9,063.00
AP6020420	60-365TY- DG7A-2-4.13 (420 RPM)	\$8,251.00	AP7510125	75-365TY- DG7A-1-14.0 (125 RPM)	\$9,063.00
AP6020350	60-365TY- DG7A-2-5.06 (350 RPM)	\$8,251.00	AP7510100	75-365TY- DG8A-1-17.1 (100 RPM)	\$14,483.00
AP6020280	60-365TY- DG7A-2-6.20 (280 RPM)	\$8,251.00	AP7510084	75-365TY- DG8A-1-20.9 ( 84 RPM)	\$14,483.00
AP6020230	60-365TY- DG7A-2-7.59 (230 RPM)	\$8,251.00	AP7510068	75-365TY- DG8A-1-25.6 ( 68 RPM)	\$14,483.00
AP6020190	60-365TY- DG7A-2-9.30 (190 RPM)	\$8,251.00	AP7510056	75-365TY- TG8A-1-31.4 ( 56 RPM)	\$15,195.00
AP6020155	60-365TY- DG7A-2-11.4 (155 RPM)	\$8,251.00	AP7521170	75-365TY- SG7A-2-1.50 (1170 RPM)	\$8,470.00
AP6020125	60-365TY- DG8A-2-14.0 (125 RPM)	\$13,671.00	AP7520950	75-365TY- SG7A-2-1.84 (950 RPM)	\$8,470.00
AP6020100	60-365TY- DG8A-2-17.1 (100 RPM)	\$13,671.00	AP7520780	75-365TY- SG8A-2-2.25 (780 RPM)	\$12,959.00
AP6020084	60-365TY- DG8A-2-20.9 ( 84 RPM)	\$13,671.00	AP7520640	75-365TY- SG8A-2-2.76 (640 RPM)	\$12,959.00
AP6020068	60-365TY- DG8A-2-25.6 ( 68 RPM)	\$13,671.00	AP7520520	75-365TY- SG8A-2-3.38 (520 RPM)	\$12,959.00
			AP7520420	75-365TY- SG8A-2-4.13 (420 RPM)	\$12,959.00
			AP7520330	75-365TY- DG7A-2-7.59 (230 RPM)	\$9,063.00
			AP7520190	75-365TY- DG7A-2-9.30 (190 RPM)	\$9,063.00
			AP7520155	75-365TY- DG8A-2-11.4 (155 RPM)	\$14,483.00
			AP7520125	75-365TY- DG8A-2-14.0 (125 RPM)	\$14,483.00
			AP7520100	75-365TY- DG8A-2-17.1 (100 RPM)	\$14,483.00
			AP7520084	75-365TY- DG8A-2-20.9 ( 84 RPM)	\$14,483.00
			AP7531170	75-365TY- SG8A-3-1.50 (1170 RPM)	\$12,959.00
			AP7530950	75-365TY- SG8A-3-1.84 (950 RPM)	\$12,959.00
			AP7530780	75-365TY- SG8A-3-2.25 (780 RPM)	\$12,959.00
			AP7530640	75-365TY- SG8A-3-2.76 (640 RPM)	\$12,959.00
			AP7530230	75-365TY- DG8A-3-7.59 (230 RPM)	\$14,483.00
			AP7530190	75-365TY- DG8A-3-9.30 (190 RPM)	\$14,483.00
			AP7530155	75-365TY- DG8A-3-11.4 (155 RPM)	\$14,483.00
			AP7530125	75-365TY- DG8A-3-14.0 (125 RPM)	\$14,483.00



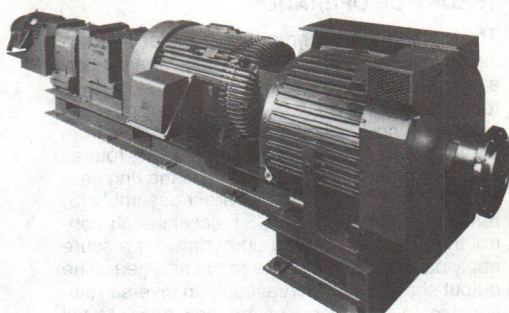


Twenty feet of over burden leads to forty feet of coal  
steam, mined with front end loaders, utilizing  
DODGE CST™ Size 170KD

**Note: Guards in the above photos have been removed for photographic purposes.**



DRY DISC TYPE



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# Wet Type System

## THEORY OF OPERATION

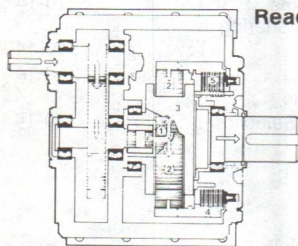
The starting of the prime mover motor sends a signal to the CST Control beginning the acceleration sequence. The CST reaction braking system is disengaged, allowing the motor and CST input gearing to accelerate disconnected from the high inertia load. The sun gear (1, 3) rotates the three planet gears (2), spinning the ring gear (4). The output shaft planet carrier assembly (3) remains stationary. The CST acceleration control then begins to pump up hydraulic pressure applying a retarding torque to the ring gear. The output shaft speed increases in an inverse relationship to the speed of the ring gear. At full speed the reaction brake is totally locked. No slip, no soft-start system losses.

## REACTION DISC SYSTEMS

### Wet Type System

The Wet Disc System utilizes a wet-clutch brake/torque application system. Torque transmitted to the output shaft is controlled by varying actuator pressure. As pressure increases on the actuator, both the rotating and stationary reaction plates move together on their free-floating splines.

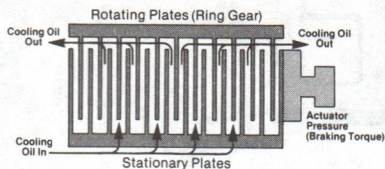
During acceleration, cooling oil is pumped through the unique grooving pattern in the plates, as well as through the oil-to-air heat exchanger. The electronic-hydraulic control continuously monitors speed of the output shaft during start-up and adjusts reaction torque to provide a constant acceleration rate regardless of the load. Unlike eddy current and fluid coupling systems, the CST reaction brake is completely "locked" during normal running conditions. There is no efficiency lost through slip.



Reaction Disc System

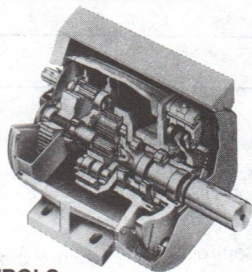


Not shown, heat exchanger/cooling system.  
Wet brake only.



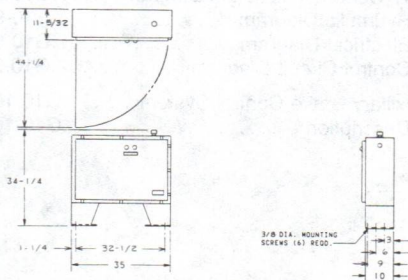
### Dry Type System

The Dry Disc System utilizes a standard spring release/hydraulic set caliper brake with non-sparking pads. Units are sized for a minimum of eight full (230KD, 170KD, 65KD only) load starts per hour and are force ventilated. Manual reset thermal overloads are standard.



## CST CONTROLS

The Closed Loop CST Acceleration and Open Loop CST Acceleration Controls regulate the soft-start of the CST Drive System. The Closed Loop Control incorporates a feedback from a digital tachometer mounted inside the CST reducer to provide repeatable starts regardless of changes in loads. The Open Loop Acceleration provides a more economical soft-start for systems that are not sensitive to changes in starting time based on load changes.

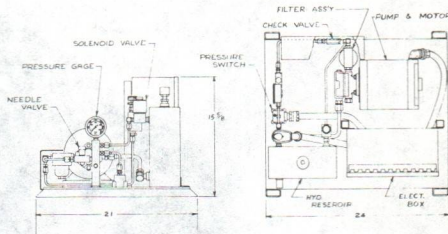


ACCELERATION CONTROL  
ENCLOSURE DIMENSIONS

## Closed Loop CST Acceleration Control II

### Description

The CST Acceleration Control II comes in a single bay NEMA 4 Enclosure. The lefthand side of the control enclosure houses the electronic logic controls, 56 frame A-C pump motor, control transformer, pump motor starter, and fuses. The righthand portion of the control includes the hydraulic actuator pump, hydraulic manifold and valves, pressure switches, and oil tight hydraulic reservoir.



### Operation

When the prime mover motor starter is energized, a 0.7 second time delay is begun to allow the prime mover to come up to speed. At the same time, the hydraulic pump motor is actuated while the bypass is open allowing the hydraulic pump motor to come up to speed. At .9 seconds the bypass valve is closed, and hydraulic pressure rises in the system beginning gradual application of pressure to the reaction brake system.

As applied torque increases the load will overcome static friction and begin to accelerate. The control will continue to increase torque to the system until the required rate of acceleration is reached. As the speed increases, the frictional losses within the system decrease. The CST control will reduce torque applied to the system to maintain a constant rate of acceleration.

The Closed Loop System will vary torque to the load to produce the desired acceleration rate. The system will produce constant acceleration rates regardless of load.

### Operation

When the prime mover motor starter is energized, a 0.7 second time delay is begun to allow the prime mover to come up to speed. At the same time the hydraulic pump motor is actuated while the bypass is open, allowing the hydraulic pump motor to come up to speed. At .4 seconds, the bypass valve is closed and hydraulic pressure rises beginning application of pressure to the reaction brake system. The torque transmitted to the load is directly proportional to the pressure applied to the reaction brake system. In the Open Loop System this pressure increases at a constant rate controlled by the adjustable flow rate metering valve. The pressure in the system will continue to increase at a constant rate until it reaches the preset trip level on the adjustable pressure switch, shutting off the pump.

Changes in load; i.e., full conveyor and empty conveyor, will produce varying start times. Reducers shipped with this control may be shipped without a tachometer and tachometer probe.

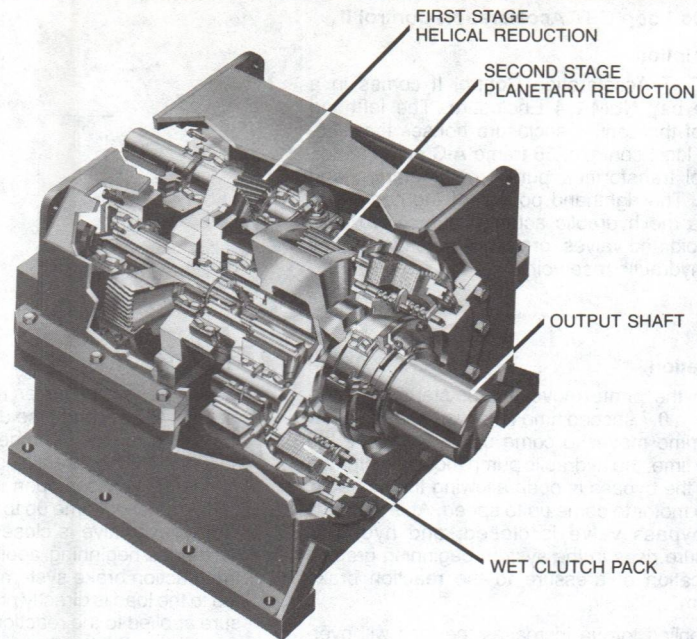
## Open Loop CST Acceleration Control

### Description

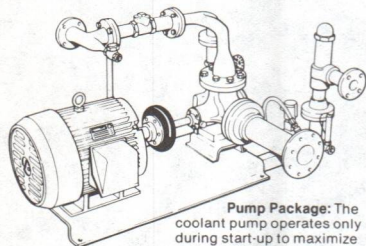
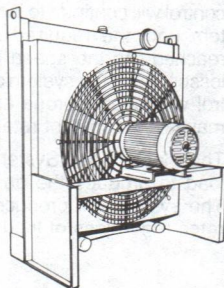
The Open-Loop CST Acceleration Control consists of a hydraulic pump and motor, fluid reservoir, hydraulic pressure switch, and small NEMA 12 enclosure containing pump motor starter and fusing.



# Wet Brake Type System

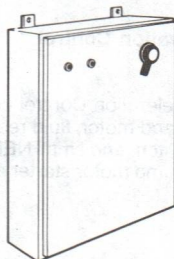


**Heat Exchanger:**  
Stand-alone, oil-to-air heat exchangers are supplied as required. Units are sized for individual starting requirements. Oil-to-water exchangers are available on request.



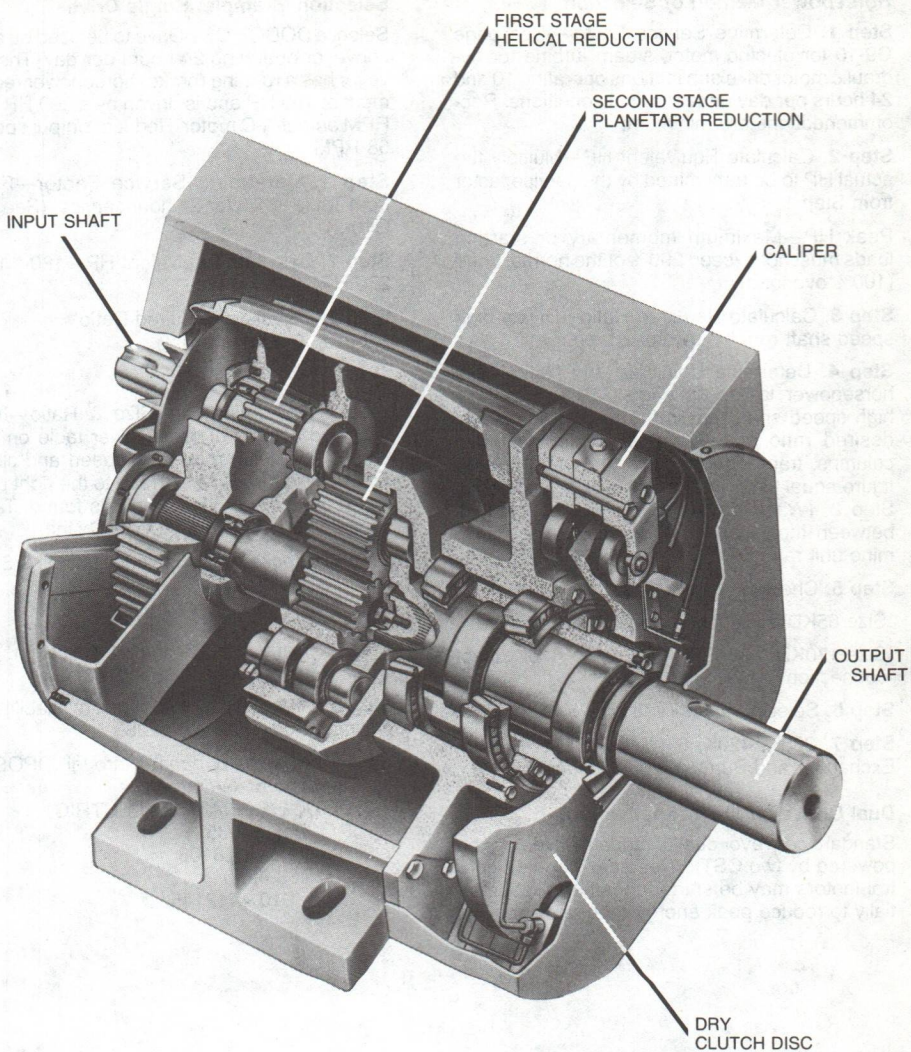
Guard removed for clarity

**Pump Package:** The coolant pump operates only during start-up to maximize system efficiency and component life. The package includes pump, motor, and mounting skids to customer/system specifications.



**Cooling Control Module:**  
Standard NEMA 12 enclosures house controls for cooling system. Special customer systems inputs, voltages and enclosures are available.

# Dry Brake Cutaway





# Selection of DODGE CST Drive Systems

## Horsepower Method of Selection

**Step 1.** Determine Service Factor—See page G9-10 for electric motor, steam turbine, or hydraulic motor drive applications operating 10 and 24 hours per day under normal conditions. Recommendations are minimum.

**Step 2.** Calculate Equivalent HP—Multiply the actual HP to be transmitted by the service factor from Step 1.

Peak HP—Maximum momentary or starting loads must not exceed 200% of the normal Load (100% overload).

**Step 3.** Calculate Required Ratio—Divide high speed shaft rpm by low speed rpm.

**Step 4.** Determine Unit Size and Ratio—See horsepower tables on page G10-7. From the high speed shaft rpm in left hand column and desired ratio and output speed in next two columns, trace right into the table and find hp figure equal to or greater than value obtained in Step 2. (When the required input speed falls between those tabulated, interpolate to determine unit rating.)

**Step 5.** Check Overhung Load Ratings.

\*Size 65KD designed for high overhung load.

\*Size 170KD, 230KD, 280K, 420K, 630K direct connection only.

**Step 6.** Select Control Type and Voltage.

**Step 7.** 280K, 420K, 630K **only**: specify Heat Exchanger and Pump Motor Voltages.

## Dual Conveyor Drive Applications

Standard conveyor dual or tandem drives can be powered by two CST drives and, standard control motors may be started together or sequentially to reduce peak energy requirements.

## Selection Example: Single Drive

Select a DODGE CST Drive to be used on a coal conveyor operating 24 hours per day. The conveyor has a running (brake) horsepower requirement of 180 HP and is driven by a 200 HP, 1750 RPM output A-C motor. Reducer output speed is 68 RPM.

**Step 1.** Determine Service Factor—Factor from Table is 1.5 for 24 hour service. (See page G10-9)

**Step 2.** Calculate Equivalent HP— $180 \times 1.5 = 270$  HP.

**Step 3.** Calculate Required Ratio =  $\frac{1750}{68} = 25.73:1$

**Step 4.** Determine Unit Size & Ratio—In the left hand column of horsepower table on page G10-7, find 1750 rpm input speed and closest AGMA ratio for 25.73:1. Trace to the right until a unit rating of 270 HP or more is found. Table shows 280 HP for a size 170KD Unit.

**Step 5.** Check Overhung Load Ratings & Starting Hour Capabilities.

**Step 6.** Select Control Type and Voltage.

**Step 7.** Refer to Customer Service for parts and number information.

**Step 8.** Check RECON for stock availability and pricing, or call 206 763-4228.

**Step 9.** Order entry directly through DPOSS or by telephone or TWX to:

DODGE/RELIANCE ELECTRIC  
P.O. Box 81085  
Seattle, WA 98108  
206-763-4228  
TWX: 910 4442145

Table I

INPUT HORSEPOWER RATINGS (AT 1.0 S.F.)																	
HIGH SPEED SHAFT RPM	NOMINAL RATIOS	APPROX. LOW SPEED SHAFT RPM	65KD <sup>1</sup>	170KD	230KD	280K	420K	630K	HIGH SPEED SHAFT RPM	NOMINAL RATIO	APPROX. LOW SPEED SHAFT RPM	65KD	170KD	230KD	280K	420K	630K
1750	5.08	350	604						1170	5.06	230	404					
	6.2	280	504							6.2	189	337					
	7.6	230	420							7.6	154	281					
	9.3	190	350							9.3	125	234					
	11.4	155	285							11.4	103	191					
	17.1	100		406	500	622	897	1435		17.1	68		271	334	415	598	957
	18.9	90		392	450	559	841	1292		18.9	62		262	301	373	561	861
	20.9	84		350	425	522	781	1206		20.9	56		234	284	348	521	804
	23.2	75		312 <sup>2</sup>	350	466	720	1077		23.2	50		209	234	311	480	718
	25.6	68		288 <sup>2</sup>	350	422	654	976		25.6	46		193	234	281	436	651
28.3	60		262 <sup>2</sup>	300	373	603	861	28.3	41		175	201	249	402	574		
31.4	56		238		348	552	804	31.4	37		159		232	368	536		
34.7	50		216		310	498	718	34.7	34		144		206	332	479		
38.4	45		206		279	454	646	38.4	30		138		186	303	431		
1450	5.06	280	500						870	5.06	172	300					
	6.2	230	418							6.2	140	251					
	7.6	190	348							7.6	114	209					
	9.3	155	290							9.3	94	174					
	11.4	125	236							11.4	76	142					
	17.1	84		336	414	515	743	1189		17.1	50		202	249	311	499	718
	18.9	77		325	373	463	697	1071		18.9	46		145	224	280	421	646
	20.9	68		290	352	433	647	999		20.9	42		174	212	261	391	603
	23.2	63		259	290	386	597	892		23.2	38		155	174	233	360	539
	25.6	56		239	290	350	542	809		25.6	34		143	174	211	327	488
28.3	51		217	249	309	500	713	28.3	30		130	149	187	302	431		
31.4	45		197		288	457	666	31.4	28		118		174	276	402		
34.7	42		179		257	413	595	34.7	25		107		155	244	359		
38.4	37		171		231	376	535	38.4	23		102						

\*Established AGMA Ratings,  $\pm 4\%$ <sup>1</sup>Preliminary RatingsNOTE: 65KD, 170KD and 230KD are Dry Caliper Type  
65KD Designed for Chain Drive Output; Other Direct Connect Only

Table II

DATA

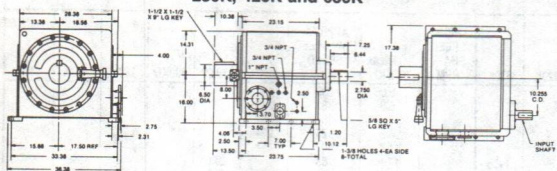
REDUCER	LUBRICANT TYPE	APPROXIMATE* LUBRICANT QUANTITY	REDUCER WEIGHT	TYPICAL SYSTEM	STANDARD B-10 LIFE	AUXILIARY SEALS
65KD	Mobilgear 629				5,000 Hrs.	Optional
170KD	Mobilgear 629	25 Gals.	3,000 Lbs.	7,800 Lbs.	5,000 Hrs.	Optional
230KD	Mobilgear 629	25 Gals.	3,000 Lbs.	7,800 Lbs.	5,000 Hrs.	Optional
280K	Mobilfluid 423	30 Gals.(1)	3,100 Lbs.	7,900 Lbs.	15,000 Hrs.	Standard
420K	Mobilfluid 423	38 Gals.(1)	3,900 Lbs.	12,000 Lbs.	15,000 Hrs.	Standard
630K	Mobilfluid 423	42 Gals.	6,400 Lbs.	16,100 Lbs.	15,000 Hrs.	Standard

(1) Plus cooling system volume, dependent on piping system.

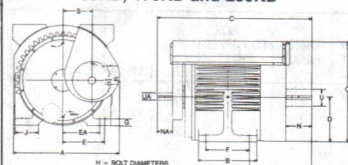
\*Quantity will vary with cooling system and pipe.



# 280K, 420K and 630K

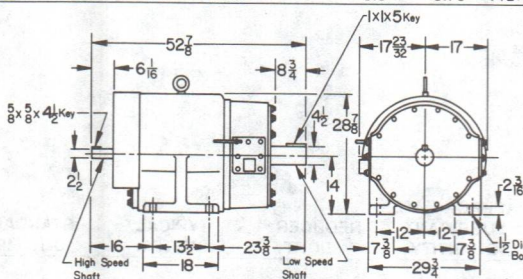


# 65KD, 170KD and 230KD



CST DRIVE	A	B	C	D	E	EA	F	G	H	J	N
65KD	See Product Introduction Data										
170KD	32 $\frac{7}{8}$	18	48	14	12 $\frac{7}{8}$	11.44	13.5	2.25	1.5	7.38	8
230KD	32 $\frac{7}{8}$	18	48	14	12 $\frac{7}{8}$	11.44	13.5	2.25	1.5	7.38	8
280K	36.38	23.75	44.62	16	15.88	17.5	21	1.825	1.25	5	10.375
420K	40.5	28.5	47.61	17	17	21	24	—	1.25	5.25	8.26
630K	45.5	34	63.56	19	19.3	23.2	30	2	1.25	5.25	12.56

CST DRIVE	NA	O	Q	R	RA	S	U	UA	KEY FOR SHAFT INPUT		
65KD	See Product Introduction Data										
170KD	4.75	31.125	19.25	—	—	9.0	5.5	2.375	1 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 8	$\frac{5}{8}$ x $\frac{5}{8}$ x 4 $\frac{3}{4}$	
230KD	4.75	31.125	19.25	—	—	9.0	5.5	2.375	1 $\frac{1}{4}$ x 1 $\frac{1}{4}$ x 8	$\frac{5}{8}$ x $\frac{5}{8}$ x 4 $\frac{3}{4}$	
280K	6.45	30.31	13.5	13.38	15	10.25	6.5	2.75	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 6	$\frac{5}{8}$ x $\frac{5}{8}$ x 4	
420K	6	32.62	11.61	14.5	18.5	13	7.5	3.25	1 $\frac{3}{4}$ x 1 $\frac{1}{2}$ x 7	$\frac{3}{4}$ x $\frac{3}{4}$ x 5	
630K	9.28	36.28	18.81	16.56	20.56	14	8.5	3.75	1 $\frac{1}{2}$ x 2 x 11 $\frac{1}{4}$	$\frac{7}{8}$ x $\frac{7}{8}$ x 7 $\frac{1}{2}$	



152UF Series  
(Replaced by 65KD)

NOMINAL RATIO	ACTUAL RATIO	APPROX. LOW SPEED SHAFT RPM @ 1800 RPM	INPUT HP MAXIMUM 1.0 S.F. †	OUTPUT TORQUE MAXIMUM 1.0 S.F. † (IN/LB)	MAXIMUM OVERHUNG LOAD Lbs ▲
5.06:1	5.137:1	350 RPM	520 HP	90798	10,600
6.2:1	6.322:1	280 RPM	460 HP	98849	11,300
7.6:1	7.408:1	230 RPM	385 HP	96945	12,000
9.3:1	9.353:1	190 RPM	325 HP	103323	12,000
11.4:1	11.47:1	155 RPM	270 HP	105266	12,000

Lubricant: Type — SAE 30  
Quantity — 46 Quarts

Reaction Disc System: Dry Caliper Type  
Thermally Protected Reaction Disc  
Hydraulically Actuated

Allowable Starts/Hour: 6

Normal Ambient Temperature: — 20F To 120F With Std. Lubricant  
— 65F To 165F—Contact Factory

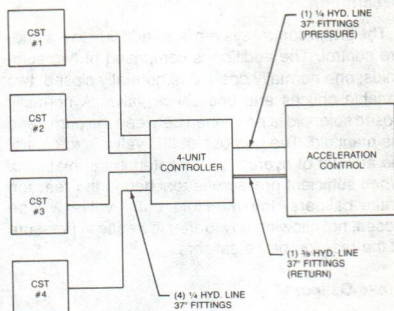
Bearings: B - 10 Life — 18,900 Hours  
Longer Life Available Upon Request

Instruction Manual #3668

Weight of Typical System: 152UF - 3550 LBS  
Typical Unit With Motor,  
Coupling and Skid - 12000 LBS.

† For Belt Conveyor Applications 1.4 Service Factor Required  
▲ Applied 4 $\frac{1}{2}$ " From Case Cover  
Consult Manual For Minimum Drive Sprocket Size

### HYDRAULIC DIAGRAM

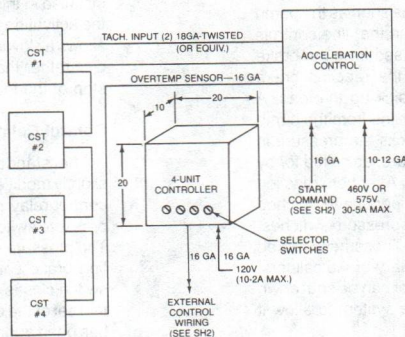


OUTPUT SHAFTS OF REDUCER ARE MECH. TIED TOGETHER

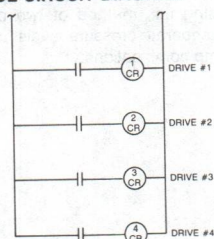
MODIFICATION:

ACCELERATION CTL II—707876-01-A

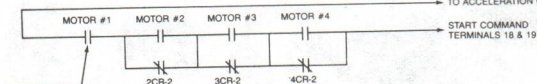
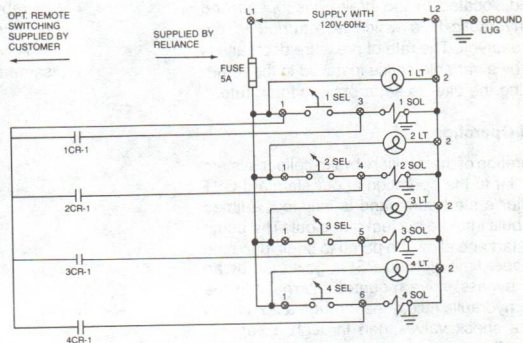
### ELECTRICAL DIAGRAM



### CONTROL CIRCUIT DIAGRAM



(4) SELECTOR SWITCHES  
OR PROGRAMABLE  
CONTROLLER  
N.O. CONTACT SETS



PRIME MOVER  
MOTOR STARTER  
N.O. CONTACT SETS (4)

**NOTE:**  
THESE CONTACT SETS MUST  
"MAKE BEFORE BREAK" IF  
SWITCHING IS DONE IN A  
"RUNNING" MODE



# Auxiliary Brake Control System

## Description

The brake control system is an addition to a standard control. The addition is comprised of two solenoids; one normally open, one normally closed, two variable orifices and one check valve. A normally closed solenoid is positioned between the pump and the manifold. The purpose of this valve is to control the amount of hydraulic fluid entering the manifold. When sufficient pressure is reached in the reaction brake calipers, the manifold entry valve will be closed, not allowing any further increase in pressure at the reaction brake calipers.

## Brake Calipers

The line to the auxiliary brake calipers goes directly from the pump to the calipers and allows pressure to be built up to release the brakes as soon as the pump is functioning. A variable orifice in that line controls how fast the brakes will be released from the brake disc; thereby allowing time for the reaction brake calipers, acting as a clutch, to pick up the load. A check valve installed in the same line from the pump to the auxiliary brake calipers locks the pressure in after obtaining the needed pressure, as called for by the setting of pressure switch #2. After both reaction brake and the auxiliary brake calipers have reached operating pressures as set on the pressure switches, the pump motor is de-energized. Pressure is locked in by the check valve in the auxiliary brake calipers. Therefore, the pump and the motor can be shut down and still maintain pressure in the system to allow it to function.

Upon a stop command, the normally open hydraulic solenoid, located in the brake line opens and releases hydraulic fluid which is returned to the hydraulic reservoir. The rate of pressure decrease is controlled by a variable orifice installed in the return line, allowing the user to set a braking force rate.

## Theory of Operation

The operation of the auxiliary brake caliper system is very similar to the operation of our standard CST control. After a start command is initiated, a timed sequence built into the system times out. The pump motor will start and allow the pump to begin pumping fluid. An upper limit of 1500 PSI is governed by an adjustable bypass valve mounted internally in the pump. The hydraulic fluid goes through a 25 micron filter onto a check valve, then through a variable orifice. This allows user control of the flow rate of fluid going to the auxiliary brake calipers, needed to completely release the spring loaded calipers from the brake disc.

## Brake Line Pressure

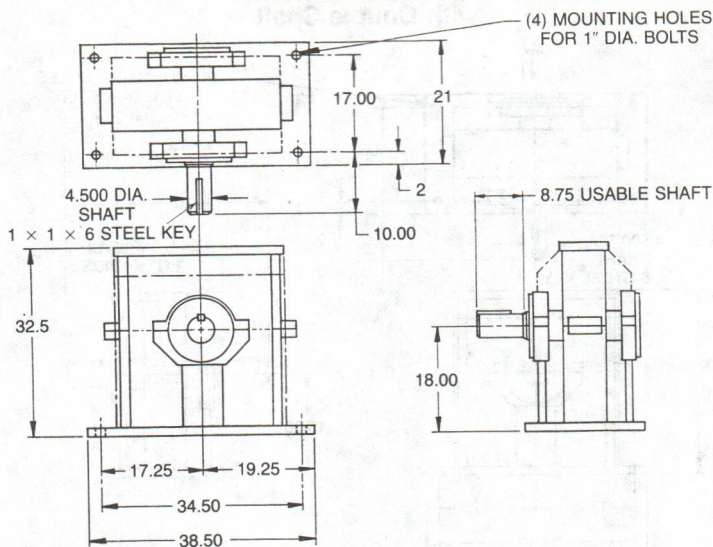
The auxiliary brake line pressure is monitored by a pressure switch, pressure switch #2. This switch has a set of contacts that go directly to the motor start command sensing line in the control. If that pressure is too low, the pump will be turned on and won't be turned off until pressure is up to a pre-set level. The check valve installed in the auxiliary brake line will check the flow of fluid input and effectively lock in pressure to the auxiliary brake calipers.

Upon a stop command, a normally open solenoid valve wired in parallel with the clutch solenoid circuitry deactivates. Since the solenoid is normally open, the brake hydraulic fluid goes to the reservoir, relieving pressure in the auxiliary brake caliper, which then clamps the brake disc. A variable orifice is installed in this return line to allow the user control of the activation time of the spring-loaded calipers. This allows a slower application of the brake pads onto the disc rather than a harsh, high loading, and stressful stop of the load.

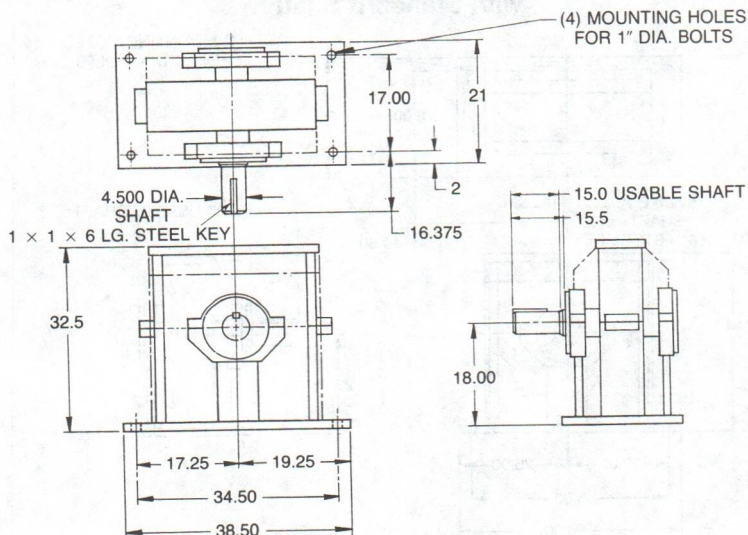
## Control Relay

The standard control system components are slightly modified by the addition of a control relay. The control relay has its operating coil wired through a pressure switch on a set of normally closed contacts. The pressure switch "PS1" monitors the clutch reaction brake caliper line. If it sees low pressure, the switch closes and activates the control relay. A contact set of the control relay activates the solenoid that has been added ahead of the manifold, allowing fluid to be passed from the pump into the manifold, and thereby build up pressure in the reaction brake caliper system. Using this method of two pressure switches allows separate pressure levels, using the same motor/pump combinations.

## 300,000 In. Lb. CST Auxiliary Brake with Standard Shaft

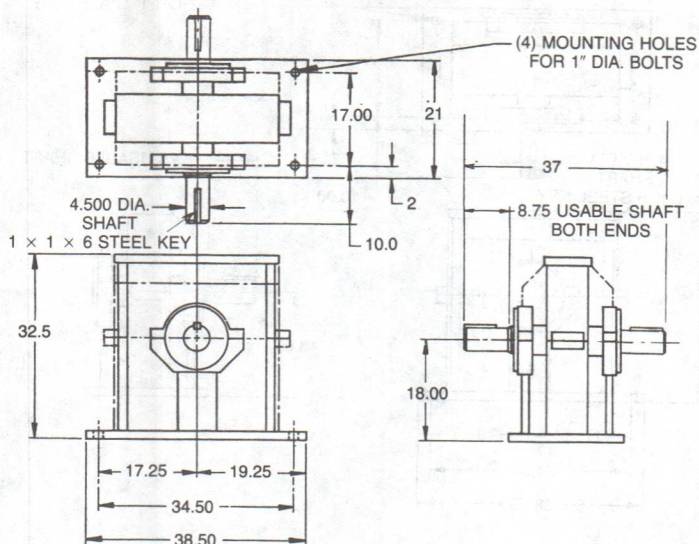


## 300,000 In. Lb. CST Auxiliary Brake with Extended Shaft

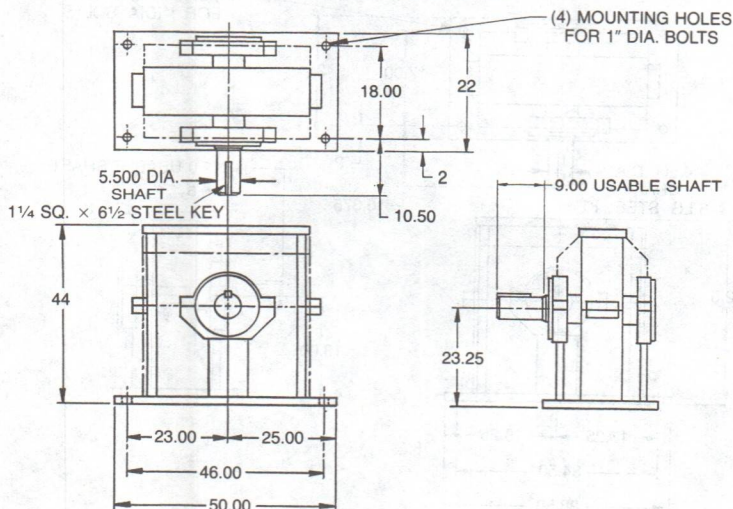




### 300,000 In. Lb. CST Auxiliary Brake with Double Shaft



### 450,000 In. Lb. CST Auxiliary Brake with Standard Shaft



## CST Options:

### Manual Control Back-Up System

Portable hydraulic hand pump mounted onto the CST Control includes valves to allow manual soft-starts in the event of control failure.

### Connection Kit

For making connections between CST acceleration control and 230KD, 170KD and 65KD reducers.

25 feet of 1/4" diameter hydraulic hose and fittings.

25 feet of twisted pair #18 cable.

### Control Mounted System Status Lights

NEMA 4 System Status Lights mounted on outside of CST Acceleration Control to provide quick visual check of system status.

Hydraulic Pump "On"

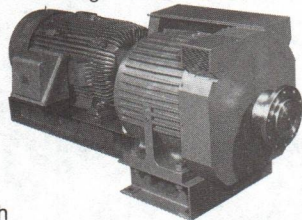
Stand-By

Emergency Stop

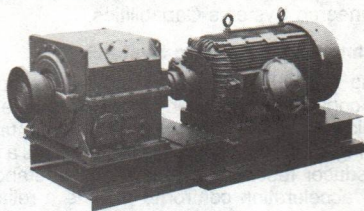
NOTE: Indicates customer supplied emergency stop interlock has been activated.

### Caliper Assemblies (65KD, 170KD, 230KD)

Complete Caliper Assemblies including caliper, and brake pads. Complete assemblies can be replaced underground when changing brake pads. Pads can then be changed "above ground."



170KD with  
200 HP RELIANCE XE Motor,  
DODGE Coupling



420K with 350 HP Reliance Motor, Dodge  
Coupling

### Wet Disc Type CST's

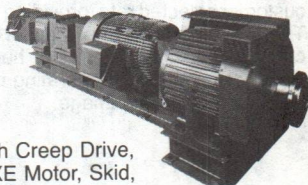
Sizes 280K, 420K, 630K

Designed for Higher Horsepower  
Soft-Starts

Up to 1400 Mechanical Horsepower

Output Speeds from 45 to 100 RPM

Supplied with Heat Exchangers and Cooling  
Pumps



170KD with Creep Drive,  
Reliance XE Motor, Skid,  
Shaft Couplings and  
Over Running Clutch

### CST Systems Packages

Complete Assembled Drive Packages with:

- Shaft Couplings
- DODGE Conveyor Pulleys
- DODGE Bearings
- CST Backstops & Brakes
- Custom Fabricated Steel Skids
- RELIANCE A-C Motors
- Creep Drives
- Load Sharing Systems

### Dry Caliper Type CST's

Sizes 65KD, 170KD, 230KD

Designed for Underground Mining

Typical Belt Conveyor HP's

Up to 500 Mechanical Horsepower

Output Speeds from 350 to 45 RPM



# CST Drive Systems

## Engineered Systems Capabilities:

### Dynamic Load Sharing Systems

Using DODGE CST Drives on multiple power unit conveyors, the user can achieve true dynamic load sharing among prime movers under varying load conditions. This system uses a watt transducer feedback system and the standard CST acceleration control to provide a reliable, low cost, method to reducer conveyor downtime.

### Creep Drives

Two methods of creep or inspection drives have been supplied to users of DODGE CST Drive Systems. For continuous or long-term running a system, DODGE can supply an over-running clutch and smaller prime mover motor reducer that is connected into the input of the CST Reducer by a chain drive or double shafted motor. The CST will soft-start in the creep mode and can be designed to provide "creep" under full load. For intermittent creep of 280K, 420K, and 630K CST Drives, the CST control will allow the oil-cooled CST reaction brake to slip at a customer selected rate, providing a creep speed. These units require only a minor control modification, no auxiliary motors or hardware. These drives are capable of operating continuously in this mode without damage.

### Booster Drives

DODGE CST Drive Systems are ideal for use in Booster or Linear Drive Systems being employed to extend conveyors with existing belting. The CST Drive System will provide load sharing and speed matching under changing belt conditions unlike many older systems employing fluid drive technology. Standard CST reducers are used, making additions and future system expansion economical and easy to maintain.

### Multiple Drive Selection

Using a 4-unit controller and a one standard CST acceleration control, from one to four CST reducers (mechanically linked) can be manually selected dependent on load conditions. All reducers that are selected will accelerate at the same rate and load share during acceleration.

### Call DODGE 206 763-4228

The DODGE CST Drive Systems Group has years of hands-on experience in designing, building, and applying drives in rough Material Handling Environments. Preinstallation customer engineering reviews and maintenance training programs are encouraged. Engineers who have installed hundreds of operating DODGE CST Drives are available to increase your operation's productivity and eliminate downtime.

## CONTENTS

FEATURES AND BENEFITS .....	M1-2 & M1-3
GENERAL INFORMATION .....	M1-4 & M1-5
MOUNTING CONFIGURATIONS .....	M1-6 & M1-7
ASSEMBLY AND MOUNTING POSITIONS .....	M1-8 & 9

### PARALLEL MOTO DRIVE SELECTION

1/4 HP .....	M1-10 & 11
1/2 HP .....	M1-12 & 13
3/4 HP .....	M1-14 & 15
1 HP .....	M1-16 & 17
1 1/2 HP .....	M1-18 & 19
2 HP .....	M1-20 & 21
3 HP .....	M1-22 & 23
5 HP .....	M1-24 & 25
7 1/2 HP .....	M1-26 & 27
10 HP .....	M1-28 & 29
15 HP .....	M1-30 & 31
20 HP .....	M1-32 & 33
25 HP .....	M1-34 & 35
30 HP .....	M1-36 & 37
40 HP .....	M1-38 & 39
50 HP .....	M1-38 & 39

### RIGHT ANGLE MOTO DRIVE SELECTION

1/4 HP .....	M1-40 & 41
1/2 HP .....	M1-42 & 43
3/4 HP .....	M1-44 & 45
1 HP .....	M1-46 & 47
1 1/2 HP .....	M1-48 & 49
2 HP .....	M1-50 & 51
3 HP .....	M1-52 & 53
5 HP .....	M1-54 & 55
7 1/2 HP .....	M1-56 & 57
10 HP .....	M1-58 & 59

### MOTO DRIVE MODIFICATIONS

Brakes .....	M1-60
"BD" MOTO DRIVE .....	M1-61
Chromalife .....	M1-61
Airtrol .....	M1-62 thru M1-65
Extended Indicator Handwheel .....	M1-66
Front Handwheel Control .....	M1-67
Mechanical Automatic Control .....	M1-67
Electric Remote Control .....	M1-68 & 69
Tachometers .....	M1-70 & 71
RAC .....	M1-72 & 73
ERC Systems .....	M1-74 & 75
Modified Motors .....	M1-76 & 77
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3 HP .....	M1-98 & 99
5 HP .....	M1-100 & 101
7 1/2 HP .....	M1-102 & 103
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# MOTO DRIVE and MAS 51

## FEATURES & BENEFITS

- 1 The upgraded Reeves® Moto Drive line incorporates machined-all-over ductile iron discs in case sizes 050 to 200.

Ductile iron is more durable than cast iron, with a tensile strength of more than double cast iron.

And ductile iron has a higher surface hardness than steel, which means more resistance to grooving of the disc face.

- 2 The improved Moto Drive unit, in sizes 100 through 600K now features a screw type shifter with a round handwheel for more positive control.

- 3 Also, the thrust bearing housing has been changed from stamped steel to cast iron.

That means improved wear characteristics because of more strength and a thicker housing. In addition, the yoke has been redesigned using cast iron instead of powdered metal.

- 4 Also the No-Lube bushing and key design has been improved on the constant disc assembly in case sizes 0-50 through 200, to allow the torque to be transmitted directly through the nylatron key.

And that means improved shock handling capacity and less wear.

All in all, that means the torque will now be transmitted over a larger area and through a stronger material.

- 5 The improved Reeves Moto Drive line incorporates Reeves NEMA Standard C-Face Construction Motor.

If you need to change motors for any reason, you can replace it on the spot with an off-the-shelf C-Face motor.

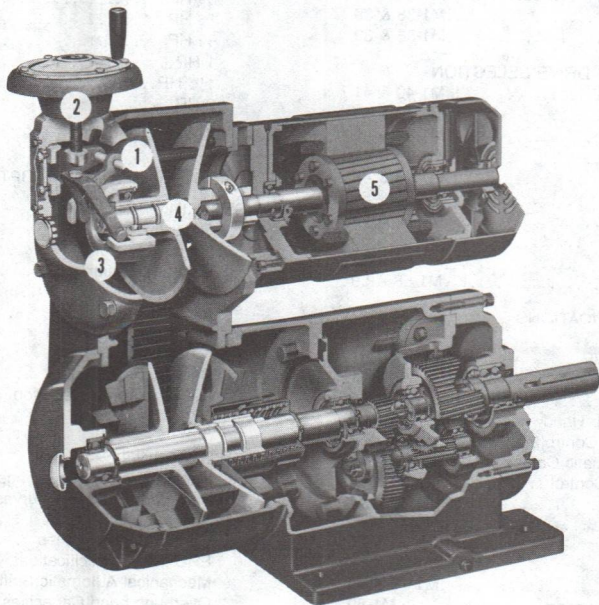
## PRICE

The new MAS 51 drive provides all the technical advances of the improved Moto Drive line at an exceptional value.

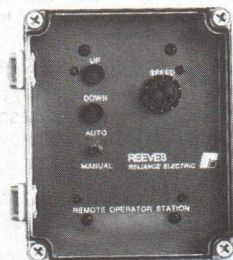
The speed range on the MAS 51 has a maximum five to one ratio. For applications for which this range is appropriate, the MAS 51 represents the most economical Reeves drive you can buy.

In fact, there's not a comparable drive anywhere that offers more value.

**NOTE:** If you use a standard C-Face motor other than Reeves, you may not get the full horsepower rating of the drive. That's because the Reeves C-Face motors have been service factored, in some cases, to make sure you get the full rated horsepower at the output shaft.



## The Best of Both Worlds



The new REEVES Automatic Controller (RAC) is an extremely versatile device that greatly enhances the flexibility and controllability of REEVES MOTO DRIVE and MAS 51 mechanical adjustable speed drives. An elegant marriage of the best mechanical and electrical variable speed drive characteristics has been achieved in one, compact package. The ruggedness and ease of service, long associated with REEVES mechanical drives, can now be complemented by the accuracy and controllability most often associated only with much more costly and complicated electrical drives.

(1) Refer to page M1-72 and M1-73 for more information and pricing on RAC.

When the need arises to determine specific component selections or wiring and interconnect schemes for specific applications, contact the REEVES application engineering team.



### LED OPERATION INDICATORS

"Up" Indicates increasing speed, "Down" Indicates decreasing speed.

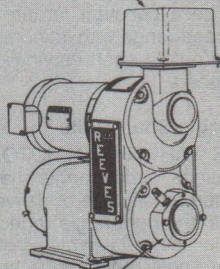
**AUTO/MANUAL SELECTOR SWITCH**  
To select internal or external speed reference.

**WATER-TIGHT HOUSING**

**10-TURN SPEED POTENTIOMETER**  
Equipped with logging scale, for controlling speed in manual mode.

**PRINTED CIRCUIT BOARD**  
Contains the complete logic, along with the adjustments for minimum speed, maximum speed, reference signal selector, and sensitivity (deadband).

**SERVOMOTOR**  
Accepts signal from control unit to appropriately position sliding belt discs in MAS unit.



**MAGNETIC PULSE PICK-UP SYSTEM**  
Provides closed-loop feedback signal to control unit to confirm operating speed.

ALL DRIVE MOUNTED HARDWARE IS SAFE FOR WASHDOWN.



# General Information

## NUMBERING SYSTEM

Each MOTO DRIVE unit size number has a 000 format, 443 is a typical size number. The first digit indicates basic MOTO DRIVE case size. The second two or three digits show speed reducer size and reduction stages, or no reducers. For right angle gear units, second, third or fourth digits indicate size of reducer. Example:

400 = 400 Size Belt Case  
No Reducer

443 = 400 Size Belt Case  
43 Triple Reducer

05W16 = 050 Size Belt Case  
W = Single Reduction Worm  
16 = Right Angle Reducer Size

## RATING BASIS

### Parallel Shaft Units

REEVES VARI-SPEED MOTO DRIVE horsepower ratings for parallel shaft units given in the *Ratings and Prices Section* are defined as the capability of the listed unit to deliver its rating at the *OUTPUT SHAFT* at the listed maximum output speed. When drive motor specifications include 50 Hz., explosion-proof, easy clean, multi-speed, or any combination of these features, the horsepower rating in the *RATINGS AND PRICES* section is based upon the rating at the input of the MOTO DRIVE belt case.

The MOTO DRIVE as listed is, therefore, considered to be a constant torque device over its entire speed range with its horsepower capability at the output shaft varying directly with the output speed.

### Right Angle Shaft Units

REEVES VARI-SPEED MOTO DRIVE horsepower ratings for right angle shaft units as listed are defined as capable of delivering its catalog rating *into* the right angle reducer at maximum speed. For the *output ratings* of MOTO DRIVE with right angle reducers, refer to the table of Output Torque and Horsepower Capacities for MOTO DRIVE units with Right Angle Reducers.

## SERVICE FACTOR

Catalog ratings for the REEVES VARI-SPEED MOTO DRIVE unit is based upon the normal power requirements for steady, constant torque loads operating 8-10 hours per day.

MOTO DRIVE units to be used for types of service other than normal must be selected by use of modifying factors that will provide correct service capacity. For assistance, refer to Reliance Sales Office with the following data:

## REQUIRED INFORMATION

1. Rpm and torque required for the application.
2. Size and frequency of peak load.
3. Hours of operation per day or week.
4. Frequency of stops and starts.
5.  $WR^2$  of the load.
6. Frequency of reversals.
7. Electrical and mechanical overload protection provisions.
8. How load is to be connected to the output shaft.
9. Any unusual operating conditions or environment.

## HOW TO SELECT

- Determine required maximum and minimum output speeds and maximum hp required by driven equipment, including any service factor adjustment (see preceding).

Example: Assume 1170 rpm as maximum and 585 rpm as minimum output speeds—a 2:1 range of speed variation and 1/4 hp for driving the load.

- In the 1/4 hp Selection Tables under 2:1 speed range, follow down to the required speeds of 1170 to 585 rpm; reading to the right, a size 050 MOTO DRIVE unit is indicated.

1/4 HP PARALLEL SHAFT			
Max. rpm	2 to 1		
	Min. rpm	Size No.	Reducer Ratio
4850	2425	050	—
3940	1970	050	—
1750	875	050	—
1430	715	050	—
1170	585	050	—
950	475	051	1.50
780	390	051	1.84

- Select the style ("C" flow or "Z" flow), the model (vertical, horizontal, etc.), and the assembly number which best meets the requirements of available space and output shaft position.
- Select and specify the control location, if for convenience a position other than standard position is required.

## MOTOR CONDUIT BOX LOCATIONS

When the MOTO DRIVE drive motor conduit box location is not specified as a part of the motor modification description on an order write-up, the standard locations defined below will be furnished:

Motor Frame <sup>(1)</sup>	Moto Drive Assembly	Standard Location
56C, 56CZ Thru 1 HP	All	Top or 12 o'clock
56CZ, 143TC & Larger	Vertical, Horizontal-Right Hand, and 45°	F-1 or Left Hand
56CZ, 143TC & Larger	Horizontal-Left Hand	F-2 or Right Hand

(1) For motor frame data and Moto Drive belt case size compatibility, refer to the dimension section.

## ORDERING INSTRUCTIONS

When ordering be sure that you include all the necessary information needed to service your order properly. List:

- Size of MOTO DRIVE unit.
- Output speeds, range of speed variation.
- Motor hp and current (phase, Hz and volts) and special motor modifications, if any.
- Shaft extension, if other than standard, as is shown on dimension page. Describe fully.
- Handwheel location, or other control equipment such as electric remote, mechanical automatic, etc.
- Assembly number. State on order if unit is to be wall, ceiling, or incline mounted.
- Accessory equipment, if any, such as tachometer, magnetic brake, etc.

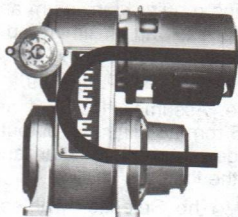
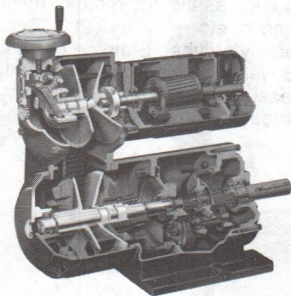


# Mounting Configurations

In both the "C" flow (motor and output shaft on the same side of the belt case) and the "Z" flow (motor and output shaft on opposite sides of the belt case), standard assemblies are available to meet virtually every installation space requirement.

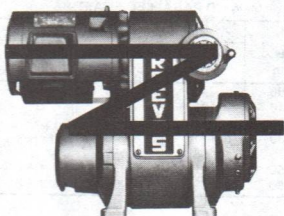
Discs are pre-aligned to give automatic belt alignment. A tension spring automatically maintains correct belt tension for smooth power flow and longer belt life. Special cog construction belt reduces operating temperatures and combines sure gripping with maximum flexibility. REEVES exclusive patented "close grooving" lubrication of the variable speed disc assemblies virtually eliminates "sticking discs" on sizes 300—600K. Sizes 050—200 utilize easily replaceable X-V bushing design.

Single, double or triple stage reducers are available in gear ratios from 1.23 to 195:1. Reducer oil level plug is located to give full splash lubrication without excessive frothing. Double lip shaft oil seal retains oil . . .excludes foreign matter. REEVES exclusive baffle type vent plug provides positive, leak-proof reducer venting. Right angle worm and combination reducers with ratios to 288:1 are also available.



## C-FLOW

In the "C" flow the motor is on the same side of the belt case as the output shaft. "C" flow is designed to fit where width is the critical dimension.



## Z-FLOW

In the "Z" flow style, the motor of the REEVES MOTO DRIVE is on the opposite side of the case from the output shaft. "Z" flow is designed to fit unusual shapes.

## INVERTED VERTICAL MOTO DRIVE:

Available in no reducer and single reducer assemblies only. No additional charge when specified on original order. For other than direct coupling, refer to MASTER-REEVES Application Section. These assemblies intended for direct coupling only.

## UNUSUAL MOUNTINGS:

Furnished at no extra cost where specified on the original order.

CEILING MOUNTINGS			
Unit With	Assemblies	Size No.	Available Positions of Output Shaft (4)
No reducer	Vertical, 45° Horizontal	050, 100, 200, 300, 400, 500, 600, 600K	Any direction parallel to ceiling
Single reducer	Vertical, 45° Horizontal	051, 111, 121, 221 231, 331, 341, 441 451, 551, 561, 661 661K	Any direction parallel to ceiling
Double reducer	Vertical, 45° Horizontal	052, 122, 222, 332, 342, 442, 452, 552, 652, 652K	Any direction parallel to ceiling
Triple reducer	Vertical, 45° Horizontal	053, 123, 133, 223 233, 243, 333, 343, 353, 443, 453, 463, 553	Any direction parallel to ceiling
Right angle reducer	Vertical, 45° Horizontal	W12, W16, W21, W28, W40, C12, C16, C21, C28, C40	Any direction parallel to ceiling

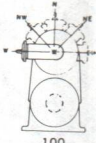
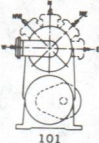
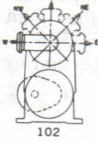
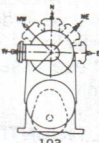
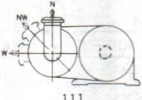
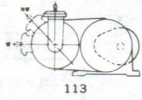
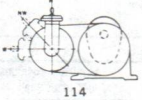
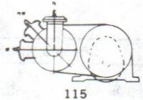
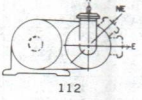
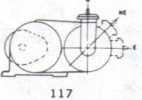
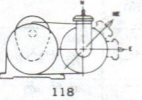
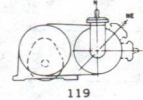
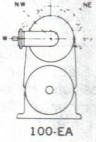
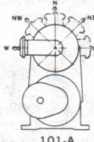
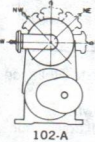
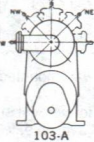
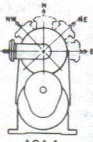
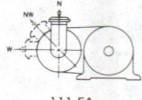

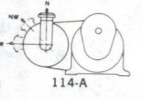
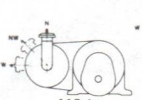
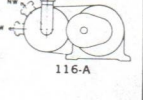
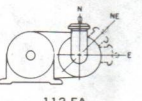
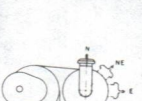
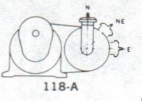
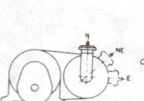
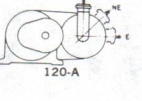
- (1) Vertical or 45° assembly, wall mounted, refer to Reliance Sales Office.
- (2) 661 requires special shaft for vertical shaft down.
- (3) W40, C28, C40, "Shaft up" available, for "Shaft down" contact Product Department or Sales Office.

WALL MOUNTINGS—HORIZONTAL MODELS ONLY (1)		
Unit With	Size No.	Available Position of Output Shaft When Facing Mounted Unit(4)
No reducer	050, 100, 200, 300, 400, 500, 600, 600K	Any direction parallel to wall
Single reducer	051, 111(5) 121, 221, 231, 331, 341, 441, 451, 551, 561, 661(2), 661K(2)	Horizontal, projecting to either right or left, and vertical shaft down
Double reducer	052, 112, 122, 222, 332, 342, 442, 452, 552, 652, 652K	Horizontal, projecting to either right or left
Triple reducer	053, 113, 123, 133, 223, 233, 243, 333, 343, 353, 443, 453, 463, 553,	Horizontal, projecting to either right or left
Right angle reducer	W12, W16, W21, W28,(3) C12, C16, C21(3)	Projecting up or down Left or right with belt case above reducer

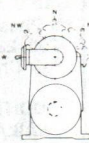
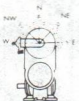
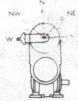
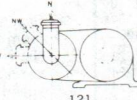

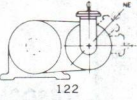
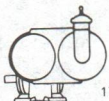
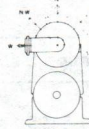
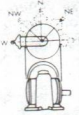
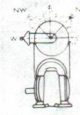
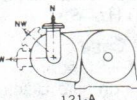
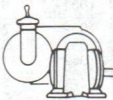
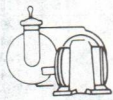
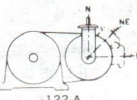
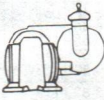

- (4) All control (Hand, Electric Remote, Airtrol, and Mechanical Automatic) positions will be determined as if MOTO DRIVE unit is floor mounted.
- (5) Gear Ratios 1.2:1 and 1.4:1 not available for Vertical Down Shaft.



# Assembly and Mounting Positions

	NON GEAR		SINGLE PARALLEL REDUCERS			
C-FLOW VERTICAL CASE SUPPORT  (1)	 100		 101	 102	 103	
C-FLOW HORI- ZONTAL CASE SUPPORT  (1)	 111		 113	 114	 115	
	 112		 117	 118	 119	
Z-FLOW VERTICAL CASE SUPPORT  (1)	 100-EA		 101-A	 102-A	 103-A	 104-A
Z-FLOW HORI- ZONTAL CASE SUPPORT  (1)	 111-EA		 113-A	 114-A	 115-A	 116-A
	 112-EA		 117-A	 118-A	 119-A	 120-A

(1) Trunnion Assemblies also available, refer to Dimension Section.

	DOUBLE & TRIPLE	RIGHT ANGLE REDUCERS	
C-FLOW VERTICAL	 105	 170-K1	 171-L1
C-FLOW HORI- ZONTAL	 121	 173-L1	
	 122	 174-K1	
Z-FLOW VERTICAL	 105-A	 170-A-K1	 171-A-L1
Z-FLOW HORI- ZONTAL	 121-A	 172-A-K1	 173-A-L1
	 122-A	 174-A-K1	 175-A-L1



# 1/4 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4850	2425	050		1616	050		1212	050		\$ 887
3940	1970	050		1313	050		985	050		887
3220	1610	050		1073	050		805	050		887
2630	1315	050		876	050		658	050		887
2150	1075	050		716	050		538	050		887
1750	875	050		583	050		438	051	1.2	887
1430	715	050		476	051	1.2	358	051	1.5	1115
1170	585	050		390	051	1.5	293	051	1.8	1115
950	475	051	1.5	316	051	1.8	238	051	2.2	1115
780	390	051	1.8	260	051	2.2	195	051	2.8	1115
640	320	051	2.2	213	051	2.8	160	051	3.4	1129
520	260	051	2.8	173	051	3.4	130	051	4.1	1154
420	210	051	3.4	140	051	4.1	105	051	5.1	1170
350	175	051	4.1	116	051	5.1	87.5	051	6.2	1184
280	140	051	5.1	93.3	051	6.2	70	052	7.6	1207
230	115	051	6.2	76.7	052	7.6	57.5	052	9.3	1229
190	95	052	9.3	63.3	052	9.3	47.5	052	11.4	1254
155	77.5	052	11.4	51.7	052	11.4	38.8	052	14.0	1276
125	62.5	052	14.0	41.7	052	14.0	31.3	052	17.1	1298
100	50	052	17.1	33.3	052	17.1	25	052	20.9	1326
84	42	052	20.9	28	052	20.9	21	052	25.6	1359
68	34	052	25.6	22.7	052	25.6	17	052	31.4	1398
56	28	052	31.4	18.7	052	31.4	14	053	38.4	1426
47	22.5	052	31.4	15	053	38.4	11.3	053	47.1	1482
37	18.5	053	38.4	12.3	053	47.1	9.25	053	57.7	1537
30	15	053	47.1	10	053	57.7	7.5	113	71.0	1596
25	12.5	053	57.7	8.33	113	71.0	6.25	113	92.0	1657
20	10	113	71.0	6.67	113	92.0	5	113	111	1826
16.5	8.25	113	92.0	5.5	113	111	4.13	113	122	1913
13.5	6.75	113	111	4.5	113	145				2010

## STANDARD UNIT SPECS

**TEFC Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**X-V Drive Features**

## ADDITIONAL RATINGS

**AVAILABLE:**  
**Right Angle—page M1-40**  
**MAS 51—page M1-86**

(1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
4850	970	050		\$ 887	4850	485	050		\$ 887
3940	788	050		887	3960	396	051	1.2	887
3220	644	050		887	3230	323	051	1.5	887
2630	526	050		887	2640	264	051	1.8	887
2150	430	051	1.2	887	2150	215	051	2.2	887
1750	350	051	1.5	887	1760	176	051	2.8	887
1430	286	051	1.8	1115	1440	144	051	3.4	1115
1170	234	051	2.2	1115	1170	117	051	4.1	1115
950	190	051	2.8	1115	960	96.0	051	5.1	1115
780	156	051	3.4	1115	780	78.0	051	6.2	1115
640	128	051	4.1	1129	640	64.0	052	7.6	1129
520	104	051	5.1	1154	520	52.0	052	9.3	1154
420	84	051	6.2	1170	425	42.5	052	11.4	1170
350	70	052	7.6	1184	346	34.6	052	14.0	1184
280	56	052	9.3	1207	283	28.3	052	17.1	1207
230	46	052	11.4	1229	232	23.2	052	20.9	1229
190	38	052	14.0	1254	189	18.9	052	25.6	1254
155	31	052	17.1	1276	154	15.4	052	31.4	1276
125	25	052	20.9	1298	126	12.6	053	38.4	1298
100	20	052	25.6	1326	103	10.3	053	47.1	1326
84	16.8	052	31.4	1359	84	8.4	053	57.7	1359
68	13.6	053	38.4	1473	65.6	6.56	113	71.0	1473
56	11.2	053	47.1	1504	55.5	5.55	113	84.0	1504
45	9	053	57.7	1504	50.7	5.07	113	92.0	1504
37	7.4	113	71.0	1560	42.0	4.20	113	111	1560
30	6	113	92.0	1596	38.2	3.82	113	122	1624
25	5	113	111	1657	32.1	3.21	113	145	1674
20	4	113	145	1826	28.6	2.86	113	163	1674
16.5	3.3	113	163	1913	20.0	2.00	113	163	1826
13.5					17.16	2.86	113	163	1913

## Modification List Additions

### Motor

**SXTF—\$125**  
**XPFC—\$167**  
**(Class I Group D, and Class II Groups F and G)**  
**Easy Clean/BISSC—\$117**  
**50 Hz—\$31**

### Belt Case

**XT—Standard**  
**Chromalife Discs—\$188**

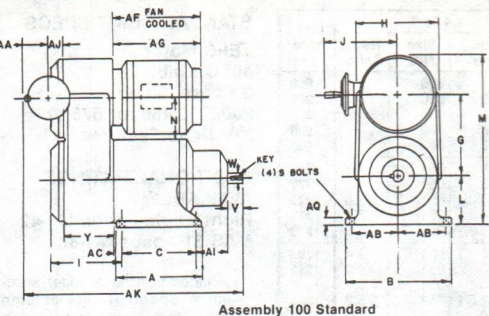
### Controls

**ERC—\$459**  
**RAC—\$847 (uses size 100 beltcase)**  
**Tachometer**  
**A-C Basic—\$498**  
**Digital Basic—\$577**

**Food & Chem Pak—\$304**  
**(Refer to page M1-84 for more information)**

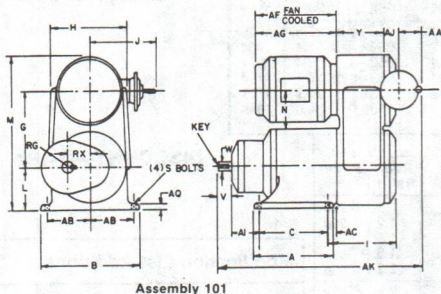
Refer to page M1-1 for additional information on modifications available.

# 1/4 HP Parallel Dimensions



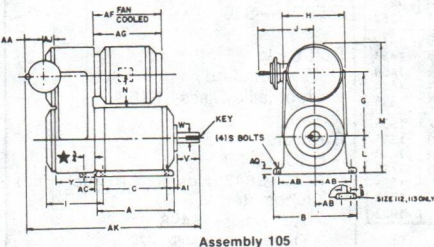
## Vertical No Reducer

Size	A	B	C	G	H	I	J
050	7 <sup>9</sup> / <sub>16</sub>	7 1/2	6 <sup>9</sup> / <sub>16</sub>	6 1/2	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>
Size	L	M	N	S	V	W	Y
050	3 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 1/4
Size	AA	AB	AC	AI	AJ		
050	1 <sup>9</sup> / <sub>16</sub>	3 1/4	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>		
Size	AK	AQ	Key				
050	17 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub> sq. x 1				



## Vertical Single Reducer

Size	A	B	C	G	H	I	J
051	7 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>
Size	L	M	N	S	V	W	Y
051	3 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
051	1 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>
Size	RG	RX	Key				
051	2 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub> sq. x 1				



## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
052, 053	7 <sup>1</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>
113	11 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
052, 053	3 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
113	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
052, 053	1 <sup>9</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	18	9 <sup>1</sup> / <sub>16</sub>
113	2	3 <sup>3</sup> / <sub>4</sub>	*	1 <sup>7</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
052, 053	3 <sup>1</sup> / <sub>16</sub> sq. x 1 <sup>1</sup> / <sub>4</sub>						
113	1 <sup>1</sup> / <sub>4</sub> sq. x 1 <sup>9</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 1/2 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4850	2425	050		1616	050		1212	050		\$ 990
3940	1970	050		1313	050		985	050		990
3220	1610	050		1073	050		805	050		990
2630	1315	050		876	050		658	050		990
2150	1075	050		716	050		538	050		990
1750	875	050		583	050		438	051	1.2	990
1430	715	050		476	051	1.2	358	051	1.5	1273
1170	585	051	1.5	390	051	1.5	293	051	1.8	1273
950	475	051	1.8	316	051	1.8	238	051	2.2	1273
780	390	051	2.2	260	051	2.2	195	051	2.8	1273
640	320	051	2.8	213	051	2.8	160	051	3.4	1295
520	260	051	3.4	173	051	3.4	130	051	4.1	1312
420	210	051	4.1	140	051	4.1	105	051	5.1	1337
350	175	051	5.1	116	051	5.1	87.5	051	6.2	1359
280	140	051	6.2	93.3	051	6.2	70	052	7.6	1382
230	115	052	7.6	76.7	052	7.6	57.5	052	9.3	1412
190	95	052	9.3	63.3	052	9.3	47.5	052	11.4	1437
155	77.5	052	11.4	51.7	052	11.4	38.8	052	14.0	1468
125	62.5	052	14.0	41.7	052	14.0	31.3	052	17.1	1496
100	50	052	17.1	33.3	052	17.1	25	052	20.9	1535
84	42	052	20.9	28	052	20.9	21	052	25.6	1565
68	34	052	25.6	22.7	052	25.6	17	052	31.4	1604
56	28	052	31.4	18.7	052	31.4	14	053	38.4	1651
45	22.5	053	38.4	15	053	38.4	11.3	053	47.1	1710
37	18.5	053	47.1	12.3	053	47.1	9.25	053	57.7	1771
30	15	053	57.7	10	053	57.7	7.5	113	84.0	1849

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
4850	970	050		\$ 990	4850	485	050		\$ 990
3940	788	050		990	3960	396	051	1.2	990
3220	644	050		990	3230	323	051	1.5	990
2630	526	050		990	2640	264	051	1.8	990
2150	430	051	1.2	990	2150	215	051	2.2	990
1750	350	051	1.5	990	1760	176	051	2.8	990
1430	286	051	1.8	1273	1440	144	051	3.4	1273
1170	234	051	2.2	1273	1170	117	051	4.1	1273
950	190	051	2.8	1273	960	96.0	051	5.1	1273
780	156	051	3.4	1273	780	78.0	051	6.2	1273
640	128	051	4.1	1295	640	64.0	052	7.6	1295
520	104	051	5.1	1312	520	52.0	052	9.3	1312
420	84	051	6.2	1337	425	42.5	052	11.4	1337
350	70	052	7.6	1359	346	34.6	052	14.0	1359
280	56	052	9.3	1382	283	28.3	052	17.1	1382
230	46	052	11.4	1412	232	23.2	052	20.9	1412
190	38	052	14.0	1437	189	18.9	052	25.6	1437
155	31	052	17.1	1468	154	15.4	052	31.4	1468
125	25	052	20.9	1496	126	12.6	053	38.4	1496
100	20	052	25.6	1535	103	10.3	053	47.1	1535
84	16.8	052	31.4	1565	84	8.4	053	57.7	1565
68	13.6	053	38.4	1604	65.6	6.56	113	71.0	1651
56	11.2	053	47.1	1651	55.5	5.55	113	84.0	1710
45	9	053	57.7	1710	50.7	5.07	113	92.0	1718
37	7.4	113	71.0	1838	42.0	4.20	113	111	1776
30	6	113	84.0	1915	30.0	4.20	113	111	1915
					25.2	4.20	113	111	1982

## STANDARD UNIT SPECS

TEFC Motor  
40° C Amb.  
3 Phase, 60 Hz  
200, 230/460, or 575 Volt  
X-V Drive Features

## ADDITIONAL RATINGS AVAILABLE:

Right Angle—page M1-42  
MAS 51—page M1-88

(1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

### Modification List Additions

#### Motor

SXTC—\$125  
XPFC—\$167  
(Class I Group D, and Class II Groups F and G)  
Easy Clean/BISSC—\$117  
50 Hz—\$36

#### Belt Case

XT—Standard  
Chromalife Discs—\$188

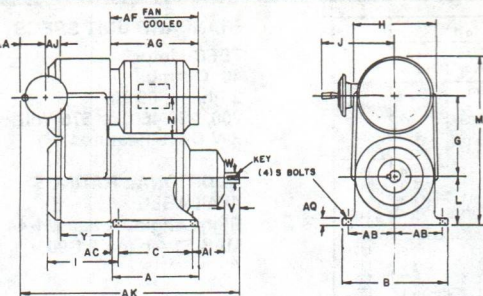
#### Controls

ERC—\$459  
RAC—\$847(uses size 100 beltcase)  
Tachometer  
A-C Basic—\$498  
Digital Basic—\$577

Food & Chem Pak—\$304  
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

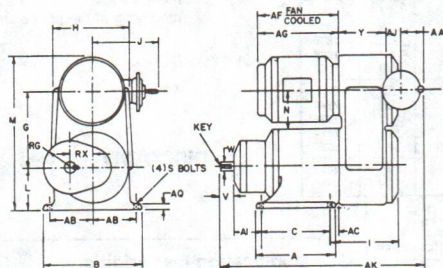
# 1/2 HP Parallel Dimensions



Assembly 100 Standard

## Vertical No Reducer

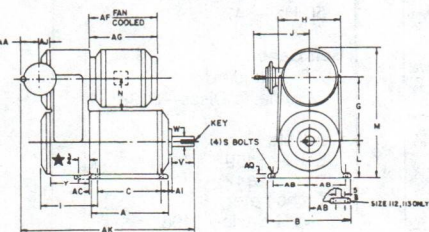
Size	A	B	C	G	H	I	J
050	7 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>
Size	L	M	N	S	V	W	Y
050	3 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
050	1 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>		
Size	AK	AQ	Key				
050	17 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub> sq. x 1				



Assembly 101

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
051	7 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>
Size	L	M	N	S	V	W	Y
051	3 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
051	1 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	17 <sup>11</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>
Size	RG	RX	Key				
051	2 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub> SQ. x 1				



Assembly 105

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
052, 053	7 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>
113	11 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
052, 053	3 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>
113	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
052, 053	1 <sup>9</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	18	9 <sup>9</sup> / <sub>16</sub>
113	2	3 <sup>3</sup> / <sub>4</sub>	+	1 <sup>7</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
052, 053	3 <sup>9</sup> / <sub>16</sub> SQ. x 1 <sup>1</sup> / <sub>4</sub>						
113	1 <sup>1</sup> / <sub>4</sub> SQ. x 1 <sup>9</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 3/4 HP Right Angle MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4660	2330	100	—	1553	100	—	1165	100	—	\$1087
3940	1970	100	—	1313	100	—	985	100	—	1087
3220	1610	100	—	1073	100	—	805	100	—	1087
2630	1315	100	—	876	100	—	658	100	—	1087
2150	1075	100	—	716	100	—	538	100	—	1087
1750	875	100	—	583	100	—	438	111	1.4	1087
1430	715	111	1.4	476	111	1.4	358	111	1.8	1426
1170	585	111	1.8	390	111	1.8	293	111	1.8	1426
950	475	111	2.4	316	111	2.4	238	111	2.4	1426
780	390	111	2.4	260	111	2.7	195	111	2.7	1426
640	320	111	2.7	213	111	2.7	160	111	3.2	1457
520	260	111	3.2	173	111	3.9	130	111	3.9	1479
420	210	111	3.9	140	111	5.2	105	111	5.2	1512
350	175	111	5.2	116	111	5.2	87.5	111	6.1	1535
280	140	111	6.1	93.3	111	6.1	70	112	9.7	1562
230	115	112	9.7	76.7	112	9.7	57.5	112	9.7	1587
190	95	112	9.7	63.3	112	9.7	47.5	112	12.7	1618
155	77.5	112	12.7	51.7	112	12.7	38.8	112	17.8	1649
125	62.5	112	14.4	41.7	112	14.4	31.3	112	17.8	1687
100	50	112	17.8	33.3	112	17.8	25	112	23.4	1732
84	42	112	23.4	28	112	23.4	21	112	27.8	1768
68	34	112	27.8	22.7	112	27.8	17	113	44.0	1824
56	28	112	30.7	18.7	112	36.3	14	123	57.7	1879
45	22.5	123	57.7	15	123	57.7	11.3	123	57.7	1936
37	18.5	123	70.6	12.3	123	70.6	9.25	123	70.6	1997
30	15	123	86.5	10	123	86.5	7.5	123	86.5	2057
25	12.5	123	106	8.33	123	106	6.25	123	106	2174
20	10	123	130	6.67	123	130	5	123	130	2295
16.5	8.25	123	159	5.5	123	159	4.13	123	159	2414
13.5	6.75	133	195	4.5	133	195	3.38	133	195	2537
11	5.5	133	195	3.67	133	195	2.75	133	195	2673
—	—	—	—	—	—	—	—	—	—	—

## STANDARD UNIT SPECS

TEFC Motor

40° C Amb.

3 Phase, 60 Hz

200, 230/460, or 575 Volt

X-V Drive Features

## ADDITIONAL RATINGS

AVAILABLE:

Right Angle—page M1-44

MAS 51—page R1-90

(1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
4660	932	100	—	\$1087	4660	466	100	—	\$1087
3940	788	100	—	1087	3980	398	111	1.2	1087
3220	644	100	—	1087	3240	324	111	1.4	1087
2630	526	100	—	1087	2650	265	111	1.8	1087
2150	430	111	1.4	1087	2160	216	111	2.2	1087
1750	350	111	1.8	1087	1945	194.5	111	2.4	1087
1430	286	111	1.8	1426	1715	171.5	111	2.7	1087
1170	234	111	2.4	1426	1465	146.5	111	3.2	1426
950	190	111	2.7	1426	1185	118.5	111	3.9	1426
780	156	111	3.2	1426	1045	104.5	111	4.5	1426
640	128	111	3.9	1457	890	89	111	5.2	1426
520	104	111	5.2	1479	764	76.4	111	6.1	1426
420	84	111	6.1	1512	675	67.5	111	6.9	1457
350	70	112	9.7	1535	555	55.5	112	8.4	1479
280	56	112	9.7	1562	480	48	112	9.7	1479
230	46	112	12.7	1587	423	42.3	112	11	1512
190	38	112	17.8	1618	366	36.6	112	12.7	1535
155	31	112	17.8	1649	324	32.4	112	14.4	1535
125	25	112	23.4	1687	262	26.2	112	17.8	1562
100	20	112	27.8	1732	220	22.0	112	21.2	1587
84	16.8	112	30.7	1768	199	19.9	112	23.4	1618
68	13.6	113	44.0	1824	168	16.8	112	27.8	1649
56	11.2	123	57.7	1879	152	15.2	112	30.7	1649
45	9	123	57.7	1936	128	12.8	112	36.3	1687
37	7.4	123	70.6	1997	106	10.6	113	44	1732
30	6	123	86.5	2057	81	8.1	123	57.7	1768
25	5	123	106	2174	66	6.6	123	70.6	1824
20	4	123	130	2295	54	5.39	123	86.5	1879
16.5	3.3	123	159	2414	44	4.4	123	106	1985
13.5	2.7	133	195	2537	35.8	3.58	123	130	2096
11	2.2	133	195	2673	29.3	2.93	133	159	2205
—	—	—	—	—	23.9	2.39	133	195	2316

## Modification List Additions

### Motor

SXTF—\$125

XPFC—\$183

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$117

50 Hz—\$47

### Belt Case

XT—Standard

Chromalife Discs—\$188

### Controls

ERC—\$459

RAC—\$847

Tachometer

A-C Basic—\$498

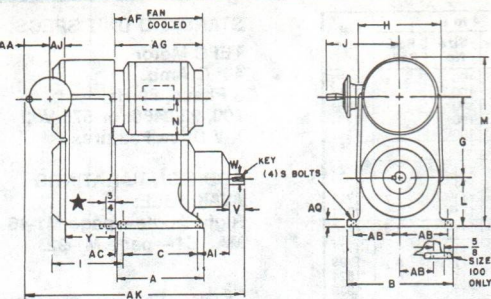
Digital Basic—\$577

Food & Chem Pak—\$304

(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

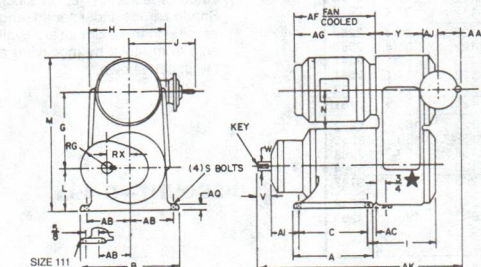
# 1/4 HP Parallel Dimensions



Assembly 100 Standard

## Vertical No Reducer

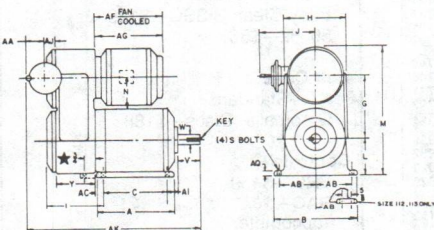
Size	A	B	C	G	H	I	J
100	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
100	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
100	2	3 <sup>3</sup> / <sub>4</sub>	—	2 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>		
Size	AK	AQ	Key				
100	21 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub> sq. × 1 <sup>3</sup> / <sub>4</sub>				



Assembly 101

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
111	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
111	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	2	1 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
111	2	3 <sup>3</sup> / <sub>4</sub>	*	2 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	RG	RX	Key				
111	2 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> sq. × 1 <sup>3</sup> / <sub>16</sub>				



Assembly 105

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
112, 113	11 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
123	12 <sup>5</sup> / <sub>16</sub>	13	10 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	10 <sup>9</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>8</sub>
133	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
112, 113	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
123	5 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>
133	6 <sup>5</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	4	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
112, 113	2	3 <sup>3</sup> / <sub>4</sub>	*	1 <sup>7</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
123	2	5 <sup>11</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	27 <sup>9</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>
133	2	6 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	28 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>
Size	Key						
112, 113	1 <sup>1</sup> / <sub>4</sub> sq. × 1 <sup>9</sup> / <sub>16</sub>						
123	3 <sup>3</sup> / <sub>8</sub> sq. × 2 <sup>1</sup> / <sub>16</sub>						
133	1 <sup>1</sup> / <sub>2</sub> sq. × 3 <sup>3</sup> / <sub>8</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 1 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4200	2100	100		1400	100		1050	100		\$1251
3940	1970	100		1313	100		985	100		1251
3220	1610	100		1073	100		805	100		1251
2630	1315	100		876	100		658	100		1251
2150	1075	100		716	100		538	100		1251
1750	875	100		583	100		438	111	1.4	1251
1430	715	111	1.4	476	111	1.4	358	111	1.8	1721
1170	585	111	1.8	390	111	1.8	293	111	2.2	1721
950	475	111	2.2	316	111	2.2	238	111	2.7	1721
780	390	111	2.4	260	111	2.4	195	111	3.2	1721
640	320	111	3.2	213	111	3.2	160	111	3.9	1740
520	260	111	3.9	173	111	3.9	130	111	5.2	1771
420	210	111	5.2	140	111	5.2	105	111	6.1	1793
350	175	111	6.1	116	111	6.1	87.5	111	6.9	1824
280	140	111	6.9	93.3	111	6.9	70	112	9.7	1935
230	115	112	9.7	76.7	112	9.7	57.5	112	12.7	1982
190	95	112	12.7	63.3	112	9.7	47.5	112	12.7	2029
155	77.5	112	14.4	51.7	112	12.7	38.8	112	17.8	2088
125	62.5	112	17.8	41.7	112	14.4	31.3	112	17.8	2152
100	50	112	21.2	33.3	112	17.8	25	112	27.8	2218
84	42	122	31.4	28	122	31.4	21	122	31.4	2280
68	34	122	31.4	22.7	122	31.4	17	122	31.4	2357
56	28	122	31.4	18.7	122	31.4	14	123	47.1	2441
45	22.5	123	57.7	15	123	57.7	11.3	123	57.7	2541
37	18.5	123	70.6	12.3	123	70.6	9.25	123	70.6	2652
30	15	123	86.5	10	123	86.5	7.5	123	86.5	2761
25	12.5	123	106	8.33	123	106	6.25	123	106	2872
20	10	133	130	6.67	133	130	5	133	130	3047
16.5	8.25	133	159	5.5	133	159	4.13	133	159	3203
13.5	6.75	133	195	4.5	133	195	3.38	133	195	3394
11	5.5	243	195	3.67	243	195	2.75	243	195	3797
9	4.5	243	195	3	243	195	2.25	243*	195	4048
7.5	3.75	243	195	2.5	243*	195	1.88	243*	195	4290

## STANDARD UNIT SPECS

TEFC Motor

40° C Amb.

3 Phase, 60 Hz

200, 230/460, or 575 Volt

X-V Drive Features

## ADDITIONAL RATINGS

AVAILABLE:

Right Angle—page M1-46

MAS 51—page M1-92

\* Denotes 1140 rpm drive motor

(1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed range es other than maximum are available from stock by modifying the prices shown.

## DISCOUNT—D-49a

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
4200	840	100		\$1251	4200	466	100		\$1251
3940	788	100		1251	3590	398	111	1.2	1251
3220	644	100		1251	2917	324	111	1.4	1251
2630	526	100		1251	2386	265	111	1.8	1251
2150	430	111	1.4	1251	1944	216	111	2.2	1251
1750	350	111	1.8	1251	1750	194	111	2.4	1251
1430	286	111	2.2	1721	1544	171	111	2.7	1721
1170	234	111	2.7	1721	1320	146	111	3.2	1721
950	190	111	3.2	1721	1069	118	111	3.9	1721
780	156	111	3.9	1721	942	104	111	4.5	1721
640	128	111	5.2	1740	800	88.8	111	5.2	1721
520	104	111	6.1	1771	688	76.4	111	6.1	1740
420	84	111	6.9	1793	608	67.5	111	6.9	1740
350	70	112	9.7	1824	500	55.5	112	8.4	1771
280	56	112	12.7	1935	433	48	112	9.7	1793
230	46	112	14.4	1982	331	36.7	112	12.7	1824
190	38	112	17.8	2029	292	32.4	112	14.4	1935
155	31	112	21.2	2088	236	26.2	112	17.8	1982
125	25	112	27.8	2152	198	22	112	21.2	2029
100	20	112	30.7	2218	179	19.9	112	23.4	2029
84	16.8	122	31.4	2280	151	16.8	112	27.8	2088
68	13.6	123	38.4	2357	137	15.2	112	30.7	2152
56	11.2	123	47.1	2441	109	12.1	123	38.4	2218
45	9	123	57.7	2541	89.2	9.88	123	47.1	2280
37	7.4	123	70.6	2652	72.8	8.1	123	57.7	2338
30	6	123	86.5	2761	59.5	6.6	123	70.6	2441
25	5	123	106	2872	48.6	5.39	123	86.5	2541
20	4	133	130	3047	39.6	4.4	123	106	2652
16.5	3.3	133	159	3203	32.3	3.58	133	130	2761
13.5	2.7	133	195	3394	26.4	2.93	133	159	2872
11	2.2	243*	195	3797	21.5	2.39	133	195	3047
9	1.8	243*	195	4048	17.6	1.76	243*	159	3383
7.5					14.4	1.44	243*	195	3575
					11	1.44	243*	195	3797
					8.64	1.44	243*	195	4048

## Modification List Additions

### Motor

SXTF—\$184

XPFC—\$184

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$139

50 Hz—\$56

### Belt Case

XT—Standard

Chromalife Discs—\$188

### Controls

ERC—\$459

RAC—\$847

Tachometer

A-C Basic—\$498

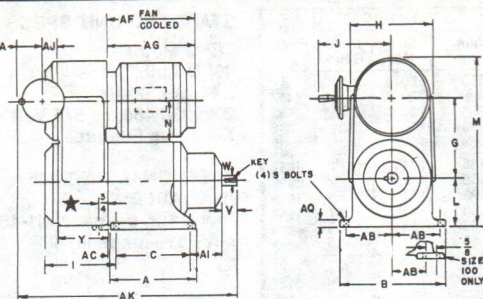
Digital Basic—\$577

Food & Chem Pak—\$327

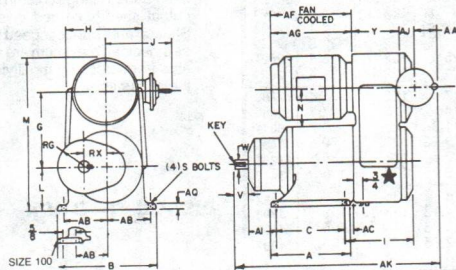
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

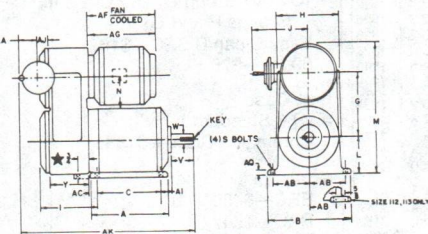
# HP Parallel Dimensions



Assembly 100 Standard



Assembly 101



Assembly 105

## Vertical No Reducer

Size	A	B	C	G	H	I	J
100	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
100	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>32</sub>	1/2	25 <sup>1</sup> / <sub>16</sub>	3/4	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
100	2	3 <sup>3</sup> / <sub>4</sub>	—	2 <sup>13</sup> / <sub>16</sub>	7/8		
Size	AK	AQ	Key				
100	21 <sup>1</sup> / <sub>2</sub>	1/2	3/16 sq. x 1 <sup>3</sup> / <sub>4</sub>				

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
111	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
111	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>32</sub>	1/2	2	15 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
111	2	3 <sup>3</sup> / <sub>4</sub>	*	2 <sup>13</sup> / <sub>16</sub>	7/8	21 <sup>3</sup> / <sub>16</sub>	1/2
Size	RG	RX	Key				
111	23/4	27/16	1/4 sq. x 1 <sup>3</sup> / <sub>4</sub>				

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
112	11 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
123	12 <sup>9</sup> / <sub>16</sub>	13	10 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	10 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
133	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	6 <sup>7</sup> / <sub>8</sub>
243	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	13	9 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
Size	L	M	N	S	V	W	Y
112	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	1/2	2 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
123	5 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	1/2	3 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>
133	6 <sup>5</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	4	9/8	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
243	8 <sup>1</sup> / <sub>8</sub>	25 <sup>11</sup> / <sub>16</sub>	5	3/4	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
112	2	3 <sup>3</sup> / <sub>4</sub>	*	17/16	7/8	217/16	1/2
123	2	5 <sup>11</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	7/8	279/16	7/8
133	2	6 <sup>13</sup> / <sub>16</sub>	27/16	17/16	7/8	283/4	1 <sup>1</sup> / <sub>4</sub>
243	3 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>4</sub>	15/16	27/16	1 <sup>1</sup> / <sub>16</sub>	359/16	1 <sup>1</sup> / <sub>4</sub>
Size	Key						
112	1/4 sq. x 1 <sup>1</sup> / <sub>16</sub>						
123	3/8 sq. x 2 <sup>1</sup> / <sub>16</sub>						
133	1/2 sq. x 3/8						
243	5/8 sq. x 3 <sup>1</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 1½ HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4200	2100	100	.....	1400	100	.....	1050	100	.....	\$1457
3940	1970	100	.....	1313	100	.....	985	100	.....	1457
3220	1610	100	.....	1073	100	.....	805	100	.....	1662
2630	1315	100	.....	876	100	.....	658	100	.....	1662
2150	1075	100	.....	716	100	.....	538	100	.....	1662
1750	875	100	.....	583	100	.....	438	111	1.8	1662
1430	715	111	1.8	476	111	1.8	358	111	2.2	1826
1170	585	111	2.4	390	111	2.4	293	111	2.4	1826
950	475	111	2.7	316	111	2.7	238	111	2.7	1999
780	390	111	3.2	260	111	3.9	195	111	3.9	1999
640	320	111	3.9	213	111	4.5	160	111	4.5	2038
520	260	121	5.1	173	121	5.1	130	121	5.1	2071
420	210	121	6.2	140	121	6.2	105	121	6.2	2121
350	175	121	6.2	116	121	6.2	87.5	121	6.2	2146
280	140	121	6.2	93.3	121	6.2	70	122	9.3	2346
230	115	122	11.4	76.7	122	9.3	57.5	122	11.4	2341
190	95	122	14.0	63.3	122	11.4	47.5	122	14.0	2405
155	77.5	122	17.1	51.7	122	14	38.8	122	17.1	2463
125	62.5	122	20.9	41.7	122	17.1	31.3	122	20.9	2530
100	50	122	25.6	33.3	122	20.9	25	122	25.6	2624
84	42	122	31.4	28	122	25.6	21	122	31.4	2691
68	34	122	31.4	22.7	122	31.4	17	122	31.4	2783
56	28	122	31.4	18.7	122	31.4	14	123	47.1	2880
45	22.5	123	57.7	15	123	57.7	11.3	123	57.7	3011
37	18.5	123	70.6	12.3	123	70.6	9.25	123	70.6	3136
30	15	133	86.5	10	133	86.5	7.5	133	86.5	3286
25	12.5	133	106	8.33	133	106	6.25	133	106	3417
20	10	133	130	6.67	133	130	5	133	130	3617
16.5	8.25	133	159	5.5	133	159	4.13	133	159	3803
13.5	6.75	243	195	4.5	243	195	3.38	243	195	4506
11	5.5	243	195	3.67	243	195	2.75	243	195	4807

## STANDARD UNIT SPECS

**TEFC Motor**  
 40° C Amb.  
 3 Phase, 60 Hz  
 200, 230/460, or 575 Volt  
 X-V Drive Features

## ADDITIONAL RATINGS AVAILABLE:

Right Angle—page M1-48  
 MAS 51—page M1-94

\* Denotes 1140 rpm drive motor

(1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying the prices shown.

## DISCOUNT—D-49a

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
4200	840	100	.....	\$1457	4200	466	100	.....	\$1457
3940	788	100	.....	1457	3590	398	111	1.2	1457
3220	644	100	.....	1662	2917	324	111	1.4	1662
2630	526	100	.....	1662	2386	265	111	1.8	1662
2150	430	111	1.4	1662	1944	216	111	2.2	1662
1750	350	111	1.8	1662	1750	194	111	2.4	1662
1430	286	111	2.2	1826	1544	171	111	2.7	1826
1170	234	111	2.4	1826	1320	146	111	3.2	1826
950	190	111	2.7	1999	1069	118	111	3.9	1826
780	156	111	3.9	1999	942	104	111	4.5	1999
640	128	111	4.5	2038	832	92	121	5.1	1999
520	104	121	5.1	2071	678	75	121	6.2	2038
420	84	121	6.2	2121	553	61	122	7.6	2071
350	70	122	9.3	2146	452	50	122	9.3	2121
280	56	122	11.4	2277	368	41	122	11.4	2146
230	46	122	14.0	2341	300	33.3	122	14.0	2346
190	38	122	17.1	2405	246	27.3	122	17.1	2341
155	31	122	20.9	2463	201	22.3	122	20.9	2405
125	25	122	25.6	2530	164	18.2	122	25.6	2463
100	20	122	31.4	2624	134	14.8	122	31.4	2530
84	16.8	122	31.4	2691	109	12.1	123	38.4	2624
68	13.6	123	38.4	2783	89.2	9.89	123	47.1	2691
56	11.2	123	47.1	2880	72.8	8.1	123	57.7	2786
45	9	123	57.7	3011	60	6.6	123	70.6	2880
37	7.4	123	70.6	3136	48.6	5.39	133	86.5	3011
30	6	133	86.5	3286	38.6	4.4	133	106	3136
25	5	133	106	3417	32.3	3.58	133	130	3286
20	4	133	130	3617	26.4	2.64	243	159	3895
16.5	3.3	133	159	3803	21.5	2.15	243	195	4095
13.5	2.7	243	195	4506	17.6	1.76	243*	159	4278
11	2.2	243*	195	4807	13.5	1.35	243*	159	4506
					10.6	1.06	243*	159	4807

## Modification List Additions

### Motor

SXTF—\$197  
 XPFC—\$192  
 (Class I Group D, and Class II Groups F and G)  
 Easy Clean/BISSC—\$167  
 50 Hz—\$70

### Belt Case

XT—Standard  
 Chromalife Discs—\$188

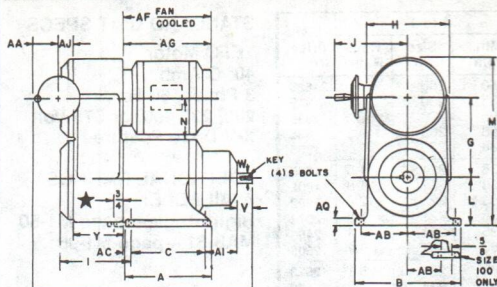
### Controls

ERC—\$459  
 RAC—\$847  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

Food & Chem Pak—\$354  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

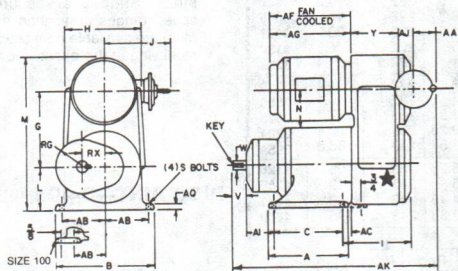
# 1½ HP Parallel Dimensions



Assembly 100 Standard

## Vertical No Reducer

Size	A	B	C	G	H	I	J
100	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
100	4 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
100	2	3 <sup>3</sup> / <sub>4</sub>	—	2 <sup>1</sup> / <sub>3</sub>	7 <sup>7</sup> / <sub>8</sub>		
Size	AK	AQ	Key				
100	21 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub> sq. x 1 <sup>1</sup> / <sub>4</sub>				

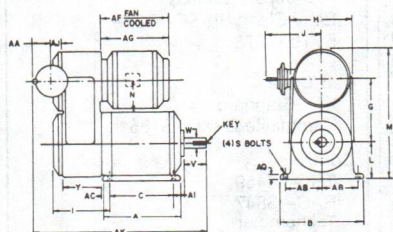


Assembly 101

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
111	10⅞	9½	9	7¾	8½	5⅞	6⅞
121	10⅞	9½	9	7¾	8½	5⅞	6⅞
Size	L	M	N	S	V	W	Y
111	4⅞	16⅞	4⅓	½	2	1⅞	5¼
121	4⅞	16⅞	4⅓	½	2⅞	1⅞	5¼
Size	AA	AB	AC	AI	AJ	AK	AQ
111	2	3¾	*	2⅓	⅞	21¾	½
121	2	3¾	*	4½	⅞	23¾	½
Size	RG	RX	Key				
111	2¾	2⅞	¼ sq. x 1⅓				
121	3½	2¾	⅝ sq. x 2				

## Vertical Double and Triple Reducers



Assembly 105

Size	A	B	C	G	H	I	J
122, 123	12⅞	13	10⅞	10½	8½	10⅞	6⅞
133	14	15¼	12¾	10½	8½	9¼	6⅞
243	19⅞	18⅞	16⅞	13	9¾	8⅞	8¾
Size	L	M	N	S	V	W	Y
122, 123	5¾	20⅞	5⅞	½	3⅞	1¾	5¼
133	6⅞	21⅞	4	⅝	4⅞	2⅞	5¼
243	8⅞	25⅞	5	¾	5⅞	2½	6¼
Size	AA	AB	AC	AI	AJ	AK	AQ
122, 123	2	5⅞	4⅞	1⅞	⅞	27⅞	⅞
133	2	6⅞	27⅞	17⅞	⅞	28¾	1¼
243	3⅞	8¾	15⅞	27⅞	1⅞	35⅞	1¼
Size	Key						
122, 123	¾ sq. x 2⅓						
133	½ sq. x 3⅞						
243	⅝ sq. x 3⅞						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 2 HP Parallel MOTO DRIVE <sup>(1)</sup>

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4200	2100	200		1400	200		1050	200		\$1835
3940	1970	200		1313	200		985	200		1835
3220	1610	200		1073	200		805	200		1835
2630	1315	200		876	200		658	200		1835
2150	1075	200		716	200		538	200		1835
1750	875	200		583	200		438	221	1.5	1835
1430	715	221	1.8	476	221	1.8	358	221	1.8	1902
1170	585	221	2.2	390	221	2.2	293	221	2.2	1902
950	475	221	2.8	316	221	2.8	238	221	2.8	2074
780	390	221	3.4	260	221	3.4	195	221	3.4	2466
640	320	221	4.1	213	221	4.1	160	221	4.1	2505
520	260	221	5.1	173	221	5.1	130	221	5.1	2533
420	210	221	6.2	140	221	6.2	105	221	6.2	2588
350	175	221	6.2	116	221	6.2	87.2	221	6.2	2633
280	140	221	6.2	93.3	221	6.2	70	222	9.3	2780
230	115	222	11.4	76.7	222	11.4	57.5	222	11.4	2852
190	95	222	14	63.3	222	14	47.5	222	14.0	2927
155	77.5	222	17.1	51.7	222	17.1	38.8	222	17.1	3005
125	62.5	222	20.9	41.7	222	20.9	31.3	222	20.9	3091
100	50	222	25.6	33.3	222	25.6	25	222	25.6	3189
84	42	222	31.4	28	222	31.4	21	222	31.4	3272
68	34	222	31.4	22.7	222	31.4	17	222	31.4	3386
56	28	222	31.4	18.7	222	31.4	14	233	47.1	3508
45	22.5	233	57.7	15	233	57.7	11.3	233	57.7	3625
37	18.5	233	70.6	12.3	233	70.6	9.25	233	70.6	3784
30	15	233	86.5	10	233	86.5	7.5	233	86.5	3959
25	12.5	233	106	8.33	233	106	6.25	233	106	4128
20	10	243	130	6.67	243	130	5	243	130	4356
16.5	8.25	243	159	5.5	243	159	4.13	243	159	4581
13.5	6.75	243	195	4.5	243	195	3.38	243	195	4840

## STANDARD UNIT SPECS

TEFC Motor

40° C Amb.

3 Phase, 60 Hz

200, 230/460, or 575 Volt

X-V Drive Features

## ADDITIONAL RATINGS

AVAILABLE:

Right Angle—page M1-50

MAS 51—page M1-96

(1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
4200	840	200		\$1974	4200	420	200		\$1974
3940	788	200		1974	3415	341	221	1.2	1974
3220	644	200		1974	2800	280	221	1.5	1974
2630	526	200		1974	2280	228	221	1.8	1974
2150	430	221	1.5	1974	1870	187	221	2.2	1974
1750	350	221	1.8	1974	1520	152	221	2.8	2041
1430	286	221	2.2	2041	1240	124	221	3.4	2041
1170	234	221	2.8	2041	1020	102	221	4.1	2213
950	190	221	3.4	2213	830	83	221	5.1	2608
780	156	221	4.1	2608	680	68	221	6.2	2644
640	128	221	5.1	2644	550	55	222	7.6	2674
520	104	221	6.2	2674	450	45	222	9.3	2727
420	84	221	6.2	2727	370	37	222	11.4	2772
350	70	222	9.3	2772	300	30	222	14	2919
280	56	222	11.4	2919	245	24.5	222	17.1	2991
230	46	222	14.0	2994	200	20	222	20.9	3066
190	38	222	17.1	3066	164	16.4	222	25.6	3144
155	31	222	20.9	3144	134	13.4	222	31.4	3233
125	25	222	25.6	3233	109	10.9	233	38.4	3328
100	20	222	31.4	3328	89.2	8.92	233	47.1	3411
84	16.8	222	31.4	3411	72.8	7.28	233	57.7	3525
68	13.6	233	47.1	3525	60	6	233	70.6	3647
56	11.2	233	57.7	3647	48.5	4.85	233	86.5	3764
45	9	233	70.6	3764	40	4	233	106	3923
37	7.4	233	86.5	3923	32.3	3.23	243	130	4100
30	6	233	106	4100	26.5	2.65	243	159	4270
25	5	233	130	4270	21.6	2.16	243	195	4498
20	4	243	159	4498	16.5	2.16	243	195	4720
16.5	3.3	243	195	4720	13	2.16	243	195	4979
13.5	2.7	243	195	4979					....

## Modification List Additions

### Motor

SXTF—\$264

XPFC—\$409

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$289

50 Hz—\$78

### Belt Case

XT—Standard

Chromalife Discs—\$188

### Controls

ERC—\$459

RAC—\$847

Tachometer

A-C Basic—\$498

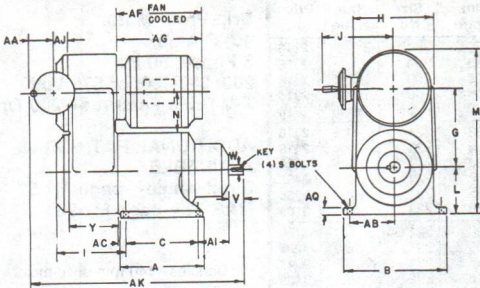
Digital Basic—\$577

Food & Chem Pak—\$477

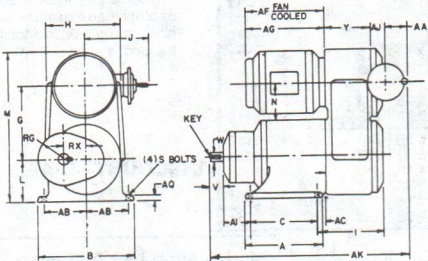
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

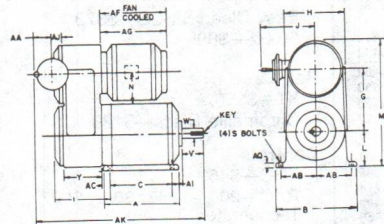
## 2 HP Parallel Dimensions



Assembly 100 Standard



Assembly 101



Assembly 105

### Vertical No Reducer

Size	A	B	C	G	H	I	J
200	10¾	13	8½	9⅞	9¾	9⅛	8¾
Size	L	M	N	S	V	W	Y
200	5¾	20⅜	4⅞	½	2⅞	1	6¼
Size	AA	AB	AC	AI	AJ		
200	3⅛	5⅞	1⅞	¾	1⅞		
Size	AK	AQ	Key				
200	26⅞	⅞	¼ sq. × 2⅞				

### Vertical Single Reducer

Size	A	B	C	G	H	I	J
221	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
Size	L	M	N	S	V	W	Y
221	5 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
221	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	26 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>
Size	RG	RX	Key				
221	3 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub> sq. x 2				

### Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
222	12 <sup>5</sup> / <sub>16</sub>	13	10 <sup>1</sup> / <sub>16</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
233	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	8 <sup>9</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
243	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	13	9 <sup>3</sup> / <sub>4</sub>	8 <sup>11</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
Size	L	M	N	S	V	W	Y
222	5 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>
233	6 <sup>5</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>16</sub>	5	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>
243	8 <sup>1</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>16</sub>	5	3 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
222	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	27 <sup>5</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>
233	3 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	29 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
243	3 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	35 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>
Size	Key						
222	3 <sup>5</sup> / <sub>8</sub> sq. x 2 <sup>1</sup> / <sub>16</sub>						
233	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>5</sup> / <sub>8</sub>						
243	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 3 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1				3 to 1				4 to 1				List Price
	Min. rpm	Size No.	Red. Ratio		Min rpm	Size No.	Red. Ratio		Min. rpm	Size No.	Red. Ratio		
4200	2100	200			1400	200			1050	200			\$2316
3940	1970	200			1313	200			985	200			2316
3220	1610	200			1073	200			805	200			2316
2630	1315	200			876	200			658	200			2316
2150	1075	200			716	200			538	200			2316
1760	875	200			583	200			438	221	1.5		2316
1430	715	221	1.8		476	221	1.8		358	221	1.8		2419
1170	585	221	2.2		390	221	2.2		293	221	2.2		2419
950	475	221	2.8		316	221	2.8		238	221	2.8		2452
780	390	221	3.4		260	221	3.4		195	221	3.4		3058
640	320	221	4.1		213	221	4.1		160	221	4.1		3108
520	260	221	5.1		173	221	5.1		130	221	5.1		3150
420	210	221	6.2		140	221	6.2		105	221	6.2		3203
350	175	231	6.2		116	231	6.2		87.5	231	6.2		3247
280	140	231	6.2		93.3	231	6.2		70	222	9.3		3439
230	115	222	11.4		76.7	222	11.4		57.5	222	11.4		3511
190	95	222	14		63.3	222	14		47.5	222	14		3595
155	77.5	222	17.1		51.7	222	17.1		38.8	222	17.1		3695
125	62.5	222	20.9		41.7	222	20.9		31.3	222	20.9		3803
100	50	232	25.6		33.3	232	25.6		25	232	25.6		3928
84	42	232	31.4		28	232	31.4		21	232	31.4		4037
68	34	232	31.4		22.7	232	31.4		17	232	31.4		4173
56	28	232	31.4		18.7	232	31.4		14	233	47.1		4320
45	22.5	233	57.7		15	233	57.7		11.3	233	57.7		4492
37	18.5	233	70.6		12.3	233	70.6		9.25	233	70.6		4670
30	15	243	86.5		10	243	86.5		7.5	243	86.5		4912
25	12.5	243	106		8.33	243	106		6.25	243	106		5137
20	10	353	130		6.67	353	130		5	353	130		5638
16.5	8.25	353	159		5.5	353	159		4.13	353	159		5980
13.5	6.75	353	195		4.5	353	195		3.38	353	195		6334
11	5.5	353	195		3.67	353	195		2.75	353	195		6795
9	4.5	353	195		3	353	195		2.25	353	195		7301

## STANDARD UNIT SPECS

### Drip-Proof Motor

40° C Amb.

3 Phase, 60 Hz

200, 230/460, or 575 Volt

X-V Drive Features—200 Only

## ADDITIONAL RATINGS

### AVAILABLE:

Right Angle—page M1-52

MAS 51—page M1-98

\* Denotes 1140 rpm drive motor.

- (1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

Max. rpm	5 to 1				List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio			Max. rpm	Min. rpm	Size No.	Red. Ratio	
4200	840	200			\$2602	4200	420	200		\$2602
3940	788	200			2602	3415	341	221	1.2	2602
3220	644	200			2602	2800	280	221	1.5	2602
2630	526	200			2602	2280	228	221	1.8	2602
2150	430	221	1.5		2602	1870	187	221	2.2	2602
1760	350	221	1.8		2602	1520	152	221	2.8	2705
1430	286	221	2.2		2705	1240	124	221	3.4	2705
1170	234	221	2.8		2705	1020	102	221	4.1	2738
950	190	221	3.4		2738	830	83	221	5.1	3347
780	156	221	4.1		3347	680	68	221	6.2	3394
640	128	221	5.1		3347	550	55	222	7.6	3453
520	104	221	6.2		3453	450	45	222	9.3	3489
420	84	221	6.2		3489	370	37	222	11.4	3533
350	70	222	9.3		3533	300	30	222	14	3725
280	56	222	11.4		3725	245	24.5	222	17.1	3797
230	46	222	14.0		3797	200	20	222	20.9	3884
190	38	222	17.1		3884	164	16.4	232	25.6	3981
155	31	222	20.9		3981	134	13.4	232	31.4	4068
125	25	232	25.6		4089	109	10.9	233	38.4	4214
100	20	232	31.4		4214	89.2	8.92	233	47.1	4323
84	16.8	232	31.4		4323	72.8	7.28	233	57.7	4459
68	13.6	233	47.1		4459	60	6	233	70.6	4606
56	11.2	233	57.7		4606	48.5	4.85	243	86.5	4779
45	9	233	70.6		4779	40	4	243	106	4957
37	7.4	233	86.5		4957	32.3	3.23	243	130	5199
30	6	243	106		5199	26.5	2.65	353(2)	159	5424
25	5	243	130		5424	21.6	2.16	353	195	5934
20	4	353	159		5934	17.6	1.76	353*	159	6277
16.5	3.3	353	195		6277	14.4	1.44	353*	195	6631
13.5	2.7	353	195		6631	11.0	1.1	353*	195	7091
11	2.2	353*	195		7091	8.64	1.44	353*	195	7598
9	1.8	353*	195		7598					

## Modification List Additions

### Motor

TEFC—\$297

XTFC—\$328

XPFC—\$534

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$373

50 Hz—\$89

### Belt Case

XT—\$150

Chromalife Discs—\$188

### Controls

ERC—\$459

RAC—200—\$847, 300—\$927

Tachometer

A-C Basic—\$498

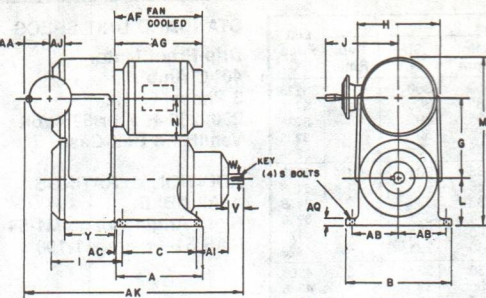
Digital Basic—\$577

Food & Chem Pak—\$710

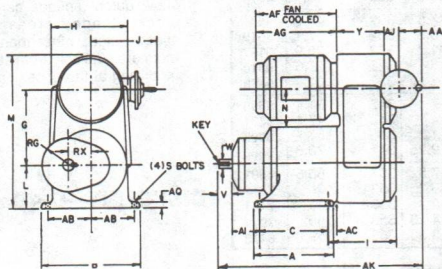
(Refer to page M1-84 for more information)

Refer to Page R1-3 for additional information on modifications available.

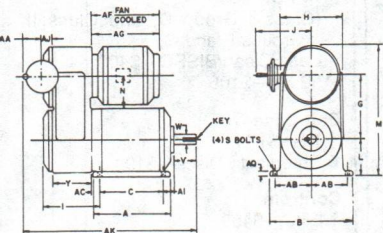
# 3 HP Parallel Dimensions



Assembly 100 Standard



Assembly 101



Assembly 105

## Vertical No Reducer

Size	A	B	C	G	H	I	J
200	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
Size	L	M	N	S	V	W	Y
200	5 <sup>3</sup> / <sub>4</sub>	20 <sup>9</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1/2	2 <sup>7</sup> / <sub>8</sub>	1	6 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
200	3 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>		
Size	AK	AQ	Key				
200	26 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	1/4 sq. x 2 <sup>1</sup> / <sub>16</sub>				

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
221	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
231	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
Size	L	M	N	S	V	W	Y
221	5 <sup>3</sup> / <sub>4</sub>	20 <sup>9</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1/2	2 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>
231	5 <sup>3</sup> / <sub>4</sub>	20 <sup>9</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1/2	3 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
221	3 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	26 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>
231	3 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	29 <sup>1</sup> / <sub>2</sub>	7 <sup>7</sup> / <sub>8</sub>
Size	RG	RX	Key				
221	3 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	3/16 sq. × 2				
231	4 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>	3/8 sq. × 2 <sup>1</sup> / <sub>16</sub>				

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
222	12 <sup>5</sup> / <sub>16</sub>	13	10 <sup>1</sup> / <sub>16</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
232, 233	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	8 <sup>9</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
243	19 <sup>1</sup> / <sub>16</sub>	18 <sup>5</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>8</sub>	13	9 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
353	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	11 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
222	5 <sup>3</sup> / <sub>4</sub>	20 <sup>9</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	1/2	3 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>
232, 233	6 <sup>5</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>16</sub>	5	5/8	4 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>
243	8 <sup>1</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>16</sub>	5	3/4	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>
353	10 <sup>5</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	7/8	6 <sup>1</sup> / <sub>8</sub>	3	7 <sup>3</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
222	3 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	27 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>
232, 233	3 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	29 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
243	3 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	35 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
353	4 <sup>3</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>4</sub>	2	2 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
222	3/8 sq. × 2 <sup>1</sup> / <sub>16</sub>						
232, 233	1/2 sq. × 3 <sup>3</sup> / <sub>8</sub>						
243	5/8 sq. × 3 <sup>1</sup> / <sub>16</sub>						
353	3/4 sq. × 4 <sup>1</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 5 HP Parallel MOTO DRIVE <sup>(1)</sup>

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4200	2100	300		1400	300		1050	300		\$3235
3940	1970	300		1313	300		985	300		3235
3220	1610	300		1073	300		805	300		3235
2630	1315	300		876	300		658	300		3235
2150	1075	300		716	300		538	300		3235
1750	875	300		583	300		438	331	1.5	3235
1430	715	331	1.8	476	331	1.8	358	331	1.8	3456
1170	585	331	2.2	390	331	2.2	293	331	2.2	3456
950	475	331	2.8	316	331	2.8	238	331	2.8	3739
780	390	331	3.4	260	331	3.4	195	331	3.4	4179
640	320	331	4.1	213	331	4.1	160	331	4.1	4225
520	260	331	5.1	173	331	5.1	130	331	5.1	4303
420	210	331	6.2	140	331	6.2	105	331	6.2	4366
350	175	331	6.2	116	331	6.2	87.5	331	6.2	4429
280	140	331	6.2	93.3	331	6.2	70	332	9.3	4683
230	115	332	11.4	76.7	332	11.4	57.5	332	11.4	4775
190	95	332	14	63.3	332	14	47.5	332	14.0	4881
155	77.5	332	17.1	51.7	332	17.1	38.8	332	17.1	5019
125	62.5	332	20.9	41.7	332	20.9	31.3	332	20.9	5157
100	50	332	25.6	33.3	332	25.6	25	332	25.6	5310
84	42	332	31.4	28	332	31.4	21	332	31.4	5465
68	34	342	31.4	22.7	342	31.4	17	342	31.4	5650
56	28	342	31.4	18.7	342	31.4	14	343	47.1	5831
45	22.5	343	57.7	15	343	57.7	11.3	343	57.7	6093
37	18.5	343	70.6	12.3	343	70.6	9.25	343	70.6	6369
30	15	353	86.5	10	353	86.5	7.5	353	86.5	6691
25	12.5	353	106	8.33	353	106	6.25	353	106	7011
20	10	353	130	6.67	353	130	5	353	130	7466
16.5	8.25	353	159	5.5	353	159	4.13	353	159	7914
13.5	6.75	353	159	4.5	353	159	3.38	353	159	8473

## STANDARD UNIT SPECS

Drip-Proof Motor  
40° C Amb.  
3 Phase, 60 Hz  
200, 230/460, or 575 Volt  
Ventilated Belt Case

## ADDITIONAL RATINGS AVAILABLE:

Right Angle—page M1-54  
MAS 51—page M1-100

(1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
4200	840	300		\$3540	4200	420	300		\$3540
3940	788	300		3540	3415	341	331	1.2	3540
3220	644	300		3540	2800	280	331	1.5	3540
2630	526	300		3540	2280	228	331	1.8	3540
2150	430	331	1.5	3540	1870	187	331	2.2	3540
1750	350	331	1.8	3540	1520	152	331	2.8	3762
1430	286	331	2.2	3762	1240	124	331	3.4	3762
1170	234	331	2.8	3762	1020	102	331	4.1	4044
950	190	331	3.4	4044	830	83	331	5.1	4484
780	156	331	4.1	4484	680	68	331	6.2	4530
640	128	331	5.1	4530	550	55	332	7.6	4605
520	104	331	6.2	4605	450	45	332	9.3	4671
420	84	331	6.2	4671	370	37	332	11.4	4734
350	70	332	9.3	4734	300	30	332	14	4988
280	56	332	11.4	4988	245	24.5	332	17.1	5077
230	46	332	14.0	5077	200	20	332	20.9	5183
190	38	332	17.1	5183	164	16.4	332	25.6	5324
155	31	332	20.9	5324	134	13.4	332	31.4	5462
125	25	332	25.6	5462	109	10.9	343	38.4	5615
100	20	332	31.4	5615	89.2	8.92	343	47.1	5768
84	16.8	332	31.4	5768	72.8	7.28	343	57.7	5955
68	13.6	343	47.1	5955	60	6	343	70.6	6136
56	11.2	343	57.7	6136	48.5	4.85	353	86.5	6398
45	9	343	70.6	6398	40	4	353	106	6671
37	7.4	343	86.5	6671	32.3	3.23	353	130	6996
30	6	353	106	6996	26.5	2.65	353	159	7316
25	5	353	130	7316	20.0	2.0	353	159	7768
20	4	353	159	7768	15.9	1.59	353	159	8217
16.5	3.3	353	195	8217					
13.5									

## Modification List Additions

### Motor

TEFC—\$317

XTFC—\$345

XPFC—\$558

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$409

50 Hz—\$106

### Belt Case

XT—\$176

Chromalife Discs—\$194

### Controls

ERC—\$459

RAC—\$927

Tachometer

A-C Basic—\$498

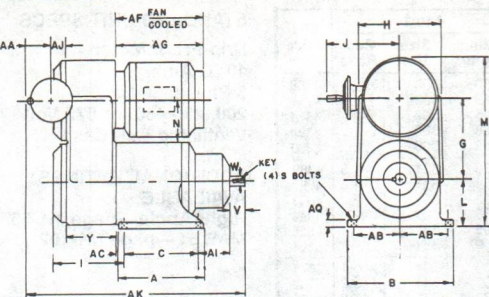
Digital Basic—\$577

Food & Chem Pak—\$778

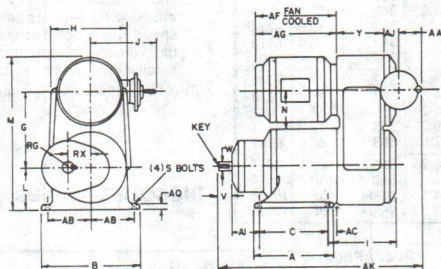
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

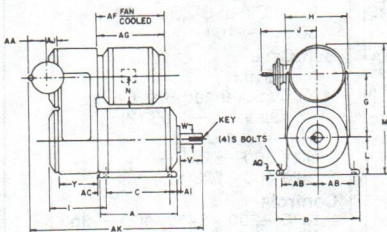
# 5 HP Parallel Dimensions



Assembly 100 Standard



Assembly 101



Assembly 105

## Vertical No Reducer

Size	A	B	C	G	H	I	J
300	13 <sup>5</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
300	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
300	4 <sup>3</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>		
Size	AK	AQ	Key				
300	32 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1/4 sq. x 2 <sup>13</sup> / <sub>16</sub>				

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
331	13 <sup>5</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
331	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
331	4 <sup>3</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	32 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
Size	RG	RX	Key				
331	4 <sup>1</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>16</sub>	3/8 sq. x 2 <sup>11</sup> / <sub>16</sub>				

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
332	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	12	10 <sup>7</sup> / <sub>8</sub>
343	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>
353	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	11 <sup>5</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
332	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>
343	8 <sup>1</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>
353	10 <sup>5</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	7 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	7 <sup>3</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
332	4 <sup>3</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	34 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
343	4 <sup>3</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	38 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
353	4 <sup>3</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>4</sub>	2	2 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
332	1/2 sq. x 3 <sup>3</sup> / <sub>8</sub>						
343	5/8 sq. x 3 <sup>15</sup> / <sub>16</sub>						
353	3/4 sq. x 4 <sup>15</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 7 1/2 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
4200(2)	2100	300	.....	1400	300	.....	1050	300	.....	\$4769
3940(2)	1970	300	.....	1313	300	.....	985	300	.....	4769
3220	1610	300	.....	1073	300	.....	805	300	.....	4674
2630	1315	300	.....	876	300	.....	658	300	.....	4389
2150	1075	300	.....	716	300	.....	538	300	.....	4389
1750	875	300	.....	583	300	.....	438	331	1.5	4389
1430	715	331	1.8	476	331	1.8	358	331	1.8	4593
1170	585	331	2.2	390	331	2.2	293	331	2.2	4593
950	475	331	2.8	316	331	2.8	238	331	2.8	4944
780	390	331	3.4	260	331	3.4	195	331	3.4	5526
640	320	331	4.1	213	331	4.1	160	331	4.1	5601
520	260	331	5.1	173	331	5.1	130	331	5.1	5675
420	210	341	6.2	140	341	6.2	105	341	6.2	5762
350	175	341	6.2	116	341	6.2	87.5	341	6.2	5851
280	140	341	6.2	93.3	341	6.2	70	332	9.3	6145
230	115	332	11.4	76.7	332	11.4	57.5	332	11.4	6288
190	95	332	14	63.3	332	14	47.5	332	14.0	6404
155	77.5	342	17.1	51.7	342	17.1	38.8	342	17.1	6533
125	62.5	342	20.9	41.7	342	20.9	31.3	342	20.9	6714
100	50	342	25.6	33.3	342	25.6	25	342	25.6	6913
84	42	342	31.4	28	342	31.4	21	342	31.4	7091
68	34	342	31.4	22.7	342	31.4	17	342	31.4	7336
56	28	343	38.4	18.7	343	38.4	14	343	47.1	7578
45	22.5	353	57.7	15	353	57.7	11.3	353	57.7	7891
37	18.5	353	70.6	12.3	353	70.6	9.25	353	70.6	8234
30	15	353	86.5	10	353	86.5	7.5	353	86.5	8646
25	12.5	353	106	8.33	353	106	6.25	353	106	9077
20	10	353	130	6.67	353	130	5	353	130	9679
16.5	8.25	353H	159	5.5	353H	159	4.13	353H	159	10266
13.5	6.75	353H	195	4.5	353H	195	3.38	353H	195	10977

## STANDARD UNIT SPECS

Drip-Proof Motor  
40° C Amb.  
3 Phase, 60 Hz  
200, 230/460, or 575 Volt  
Ventilated Belt Case

## ADDITIONAL RATINGS AVAILABLE:

Right Angle—page M1-56  
MAS 51—page M1-102

\* Denotes 1140 rpm drive motor.

- (1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.
- (2) XT available with Screened Belt Case Opening.

## DISCOUNT—D-49a

Max. rpm	5 to 1			List Price	Maximum (2)			List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	
4200(2)	840	300	.....	\$5016	4200	420	300	\$5016
3940(2)	788	300	.....	5016	3415	341	331	1.2 4731
3220	644	300	.....	4731	2800	280	331	1.5 4731
2630	526	300	.....	4731	2280	228	331	1.8 4731
2150	430	331	1.5	4731	1870	187	331	2.2 4731
1750	350	331	1.8	4731	1520	152	331	2.8 4936
1430	286	331	2.2	4936	1240	124	331	3.4 4936
1170	234	331	2.8	4936	1020	102	331	4.1 5287
950	190	331	3.4	5287	830	83	331	5.1 5868
780	156	331	4.1	5868	680	68	341	6.2 5943
640	128	331	5.1	5943	550	55	332	7.6 6016
520	104	331	6.2	6016	450	45	332	9.3 6104
420	84	341	6.2	6104	370	37	332	11.4 6193
350	70	332	9.3	6193	300	30	332	14 6487
280	56	332	11.4	6487	245	24.5	342	17.1 6611
230	46	332	14.0	6611	200	20	342	20.9 6746
190	38	332	17.1	6746	164	16.4	342	25.6 6876
155	31	342	20.9	6876	134	13.4	342	31.4 7057
125	25	342	25.6	7057	109	10.9	343	38.4 7255
100	20	342	31.4	7255	89.2	8.92	343	47.1 7434
84	16.8	342	31.4	7434	72.8	7.28	353	57.7 7679
68	13.6	343	47.1	7679	60	6	353	70.6 7920
56	11.2	343	57.7	7920	48.5	4.85	353	86.5 8234
45	9	353	70.6	8234	40	4	353	106 8576
37	7.4	353	86.5	8576	32.3	3.23	353	130 8988
30	6	353	106	8988	26.4	2.64	353H	159 9420
25	5	353	130	9420	21.5	2.15	353H	195 10021
20	4	353	159	10021	16.5	2.09	453H*	159 10608
16.5	3.3	353H	195	10608	12.5	2.09	453H*	159 11319
13.5	2.7	353H	195	11319	.....	.....	.....	.....

## Modification List Additions

### Motor

TEFC—\$602  
XTFC—\$648  
XPFC—\$901  
(Class I Group D, and Class II Groups F and G)  
Easy Clean/BISSC—\$717  
50 Hz—\$164

### Belt Case

XT—\$193  
XT w/Screened Belt Case Opening—\$193 (2)  
Chromalife Discs—  
Size 300—\$194  
Size 400—\$230

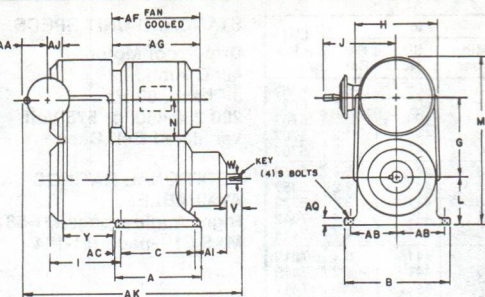
### Controls

ERC—300—\$459, 400—\$953  
RAC—300 Only—\$927  
Tachometer  
A-C Basic—\$498  
Digital Basic—\$577

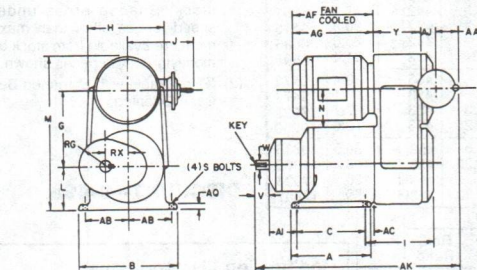
Food & Chem Pak—\$1104  
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

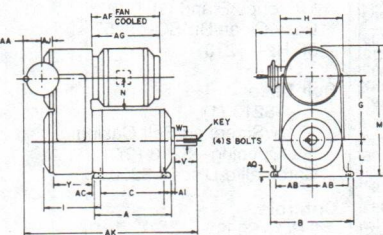
# 7 1/2 HP Parallel Dimensions



Assembly 100 Standard



Assembly 101



Assembly 105

## Vertical No Reducer

Size	A	B	C	G	H	I	J
300	13 <sup>5</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
300	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
300	4 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>		
Size	AK	AQ	Key				
300	32 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1/4 sq.	x 2 <sup>1</sup> / <sub>16</sub>			

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
331	13 <sup>5</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>
341	13 <sup>5</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
331	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>
341	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
331	4 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
341	4 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	7	1 <sup>3</sup> / <sub>4</sub>	37 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
Size	RG	RX	Key				
331	4 <sup>1</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>16</sub>	3/8 sq. x 2 <sup>1</sup> / <sub>16</sub>				
341	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1/2 sq. x 3 <sup>3</sup> / <sub>8</sub>				

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
332	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	12	10 <sup>7</sup> / <sub>8</sub>
342, 343	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>
353, 353H	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	11 <sup>5</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>
453H	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
332	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>
342, 343	8 <sup>1</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>
353, 353H	10 <sup>5</sup> / <sub>16</sub>	32 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>8</sub>	3	7 <sup>3</sup> / <sub>4</sub>
453H	10 <sup>5</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	9 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
332	4 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	34 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
342, 343	4 <sup>3</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	38 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
353, 353H	4 <sup>3</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>4</sub>	2	2 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	42 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>
453H	5	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	44 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
332	1/2 sq. x 3 <sup>3</sup> / <sub>8</sub>						
342, 343	5/8 sq. x 3 <sup>1</sup> / <sub>16</sub>						
353, 353H	3/4 sq. x 4 <sup>1</sup> / <sub>16</sub>						
453H	3/4 sq. x 4 <sup>1</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 10 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
3940(2)	1970	400	.....	1313	400	.....	985	400	.....	\$6145
3220(2)	1610	400	.....	1073	400	.....	805	400	.....	6029
2630	1315	400	.....	876	400	.....	658	400	.....	5707
2150	1075	400	.....	716	400	.....	538	441	1.2	5707
1750	875	400	.....	583	400	.....	438	441	1.5	5707
1430	715	441	1.8	476	441	1.8	358	441	1.8	5957
1170	585	441	2.2	390	441	2.2	293	441	2.2	5957
950	475	441	2.8	317	441	2.8	238	441	2.8	6323
780	390	441	3.4	260	441	3.4	195	441	3.4	7042
640	320	441	4.1	213	441	4.1	160	441	4.1	7114
520	260	441	5.1	173	441	5.1	130	441	5.1	7218
420	210	441	6.2	140	441	6.2	105	441	6.2	7319
350	175	441	6.2	117	441	6.2	87.5	442	7.6	7411
280	140	441	6.2	93.3	441	6.2	70	442	9.3	7756
230	115	442	11.4	76.7	442	11.4	57.5	442	11.4	7906
190	95	442	14.0	63.3	442	14.0	47.5	442	14.0	8070
155	77.5	442	17.1	51.7	442	17.1	38.8	442	17.1	8251
125	62.5	442	20.9	41.7	442	20.9	31.3	442	20.9	8415
100	50	442	25.6	33.3	442	25.6	25	442	25.6	8686
84	42	442	31.4	28	442	31.4	21	442	31.4	8896
68	34	452	31.4	22.7	452	31.4	17	453	38.4	9172
56	28	452	31.4	18.7	452	31.4	14	453	47.1	9471
45	22.5	453	57.7	15	453	57.7	11.3	453	57.7	9825
37	18.5	453	70.6	12.3	453	70.6	9.25	453	70.6	10280
30	15	453	86.5	10	453	86.5	7.5	453	86.5	10818
25	12.5	453H	106	8.33	453H	106	6.25	453H	106	11365
20	10	453H	130	6.67	453H	130	5	453H	130	12024
16.5	8.25	453H	159	5.5	453H	159	4.13	453H	159	12807

## STANDARD UNIT SPECS

**Drip-Proof Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200 230/460, or 575 Volt**  
**Ventilated Belt Case**

## ADDITIONAL RATINGS AVAILABLE:

**Right Angle—page M1-58**  
**MAS 51—page M1-104**

- (1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.
- (2) XT available with Screened Belt Case Opening.

## DISCOUNT—D-49a

Max. rpm	5 to 1 (2)			List Price	Maximum (2)				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
3940(2)	788	400	.....	\$6832	3940	500	400	.....	\$6832
3220(2)	644	400	.....	6717	3220	409	441	1.2	6717
2630	526	441	1.2	6395	2630	334	441	1.5	6395
2150	430	441	1.5	6395	2150	273	441	1.8	6395
1750	350	441	1.8	6395	1750	222	441	2.2	6395
1430	286	441	2.2	6645	1430	182	441	2.8	6645
1170	234	441	2.8	6645	1170	149	441	3.4	6645
950	190	441	3.4	7011	950	121	441	4.1	7011
780	156	441	4.1	7730	780	99	441	5.1	7730
640	128	441	5.1	7802	640	81.2	441	6.2	7802
520	104	441	6.2	7906	520	66	442	7.6	7906
420	84	442	7.6	8012	420	53	442	9.3	8012
350	70	442	9.2	8099	350	45	442	11.4	8099
280	56	442	11.4	8447	280	36	442	14.0	8447
230	46	442	14.0	8594	230	29	442	17.1	8594
190	38	442	17.1	8758	190	24	442	20.9	8758
155	31	442	20.9	8930	155	19.7	442	25.6	8930
125	25	442	25.6	9106	125	15.9	442	31.4	9106
100	20	442	31.4	9377	100	12.7	443	38.4	9377
84	16.8	443	38.4	9584	84	10.7	453	47.1	9584
68	13.6	453	47.1	9863	68	8.63	453	57.7	9863
56	11.2	453	57.7	10159	56	7.11	453	70.6	10159
45	9	453	70.6	10513	45	5.71	453	86.5	10513
37	7.4	453	86.5	10971	37	4.7	453	106	10971
30	6	453	106	11506	30	3.81	453H	130	11506
25	5	453H	130	12021	25	3.17	453H	159	12021
20	4	453H	159	12712	19	3.17	453H	159	12712
16.5	.....	.....	.....	.....	.....	.....	.....	.....	.....

## Modification List Additions

### Motor

TEFC—\$627  
 XTFC—\$673  
 XPFC—\$930  
 (Class I Group D, and Class II Groups F and G)  
 Easy Clean/BISCC—\$757  
 50 Hz—\$210

### Belt Case

XT—\$213 (1)  
 XT w/Screened Belt Casing Opening—\$213 (2)  
 Chromalife Discs—\$230

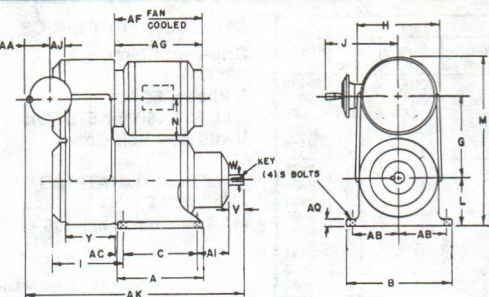
### Controls

ERC—\$953  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

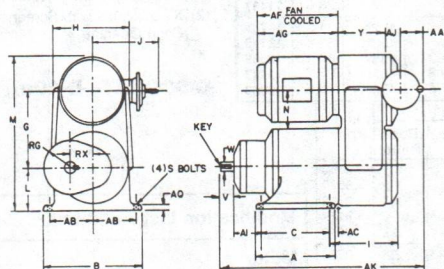
**Food & Chem Pak—\$1200**  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

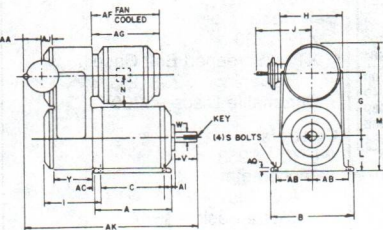
# 10 HP Parallel Dimensions



Assembly 100 Standard



Assembly 101



Assembly 105

## Vertical No Reducer

Size	A	B	C	G	H	I	J
400	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
400	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
400	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>		
Size	AK	AQ	Key				
400	4 <sup>11</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	3/8 sq. x 37/16				

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
441	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
441	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
441	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	4 <sup>19</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
Size	RG	RX	Key				
441	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> sq. × 3 <sup>3</sup> / <sub>8</sub>				

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
442, 443	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	13 <sup>9</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>
453, 453H	21 <sup>1</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
442, 443	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>
453, 453H	10 <sup>5</sup> / <sub>8</sub>	35 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	9 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
442, 443	5	8 <sup>1</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	4 <sup>23</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
453, 453H	5	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	4 <sup>4</sup> / <sub>3</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
442, 443	5 <sup>5</sup> / <sub>8</sub> sq. × 3 <sup>1</sup> / <sub>16</sub>						
453, 453H	3 <sup>3</sup> / <sub>4</sub> sq. × 4 <sup>1</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 15 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
3940(2)	1970	400	.....	1313	400	.....	985	400	.....	\$8139
3220(2)	1610	400	.....	1073	400	.....	805	400	.....	8009
2630(2)	1315	400	.....	876	400	.....	658	400	.....	7598
2150	1075	400	.....	716	400	.....	538	400	.....	7598
1750	875	400	.....	583	400	.....	438	441	1.2	7598
1430	715	441	1.5	476	441	1.5	358	441	1.5	7986
1170	585	441	1.8	390	441	1.8	293	441	1.8	7986
950	475	441	2.2	317	441	2.2	238	441	2.2	8401
780	390	441	2.8	260	441	2.8	195	441	2.8	9236
650	320	441	3.4	213	441	3.4	160	441	3.4	9325
520	260	441	4.1	173	441	4.1	130	441	4.1	9431
420	210	451	5.1	140	451	5.1	105	451	5.1	9543
350	175	451	6.2	117	451	6.2	87.5	451	6.2	9650
280	140	451	6.2	93.3	451	6.2	70	442	7.6	10027
230	115	451	6.2	76.7	442	9.3	57.5	442	9.3	10266
190	95	442	11.4	63.3	442	11.4	47.5	442	11.4	10404
155	77.5	442	14.0	51.7	442	14.0	38.8	442	14.0	10631
125	62.5	452	17.1	41.7	452	17.1	31.3	452	17.1	10882
100	50	452	20.9	33.3	452	20.9	25	452	20.9	11178
84	42	452	25.6	28	452	25.6	21	452	25.6	11437
68	34	452	31.4	22.7	452	31.4	17	452	31.4	11785
56	28	452	31.4	18.7	452	31.4	14	453	38.4	12119
45	22.5	453	47.1	15	453	47.1	11.3	453	47.1	12568
37	18.5	453H	57.7	12.3	453H	57.7	9.3	453H	57.7	13147
30	15	453H	70.6	10	453H	70.6	7.5	453H	70.6	13863

## STANDARD UNIT SPECS

**Drip-Proof Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**Ventilated Belt Case**

**ADDITIONAL RATINGS**  
**AVAILABLE:**  
**MAS 51—page M1-106**

- (1) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.
- (2) XT available with Screened Belt Case Opening.

## DISCOUNT—D-49a

Max. rpm	5 to 1(2)			List Price	Maximum (2)				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
3940(2)	788	400	.....	\$8660	3940	500	400	.....	\$8660
3220(2)	644	400	.....	8530	3220	409	441	1.2	8530
2630(2)	526	441	1.2	8119	2630	334	441	1.5	8119
2150	430	441	1.5	8119	2150	273	441	1.8	8119
1750	350	441	1.8	8119	1750	222	441	2.2	8119
1430	286	441	2.2	8507	1430	182	441	2.8	8507
1170	234	441	2.8	8507	1170	149	441	3.4	8507
950	190	441	3.4	8922	950	121	441	4.1	8922
780	156	441	4.1	9756	780	99	441	5.1	9756
650	128	441	5.1	9849	640	81.2	441	6.2	9849
520	104	441	6.2	9955	520	66	442	7.6	9955
420	84	442	7.6	10064	420	53	442	9.3	10064
350	70	442	9.3	10171	350	45	442	11.4	10171
280	56	442	11.4	10548	280	36	442	14.0	10548
230	46	442	14.0	10718	230	29	442	17.1	10718
190	38	442	17.1	10925	190	24	442	20.9	10925
155	31	442	20.9	11152	155	19.7	442	25.6	11152
125	25	452	25.6	11403	125	15.9	452	31.4	11403
100	20	452	31.4	11702	100	12.7	453	38.4	11702
84	16.8	453	38.4	11961	84	10.7	453	47.1	11961
68	13.6	453	47.1	12306	68	8.6	453	57.7	12306
56	11.2	453	57.7	12640	56	7.1	453	70.6	12640
45	9	453	70.6	13089	45	5.7	453	86.5	13089
37	7.4	453	86.5	13668	37	4.7	453H	106	13668
30	6	453H	106	14384	30	3.8	453H	130	14384

## Modification List Additions

### Motor

TEFC—\$837  
 XTFC—\$912  
 XPFC—\$1263  
 (Class I Group D, and Class II  
 Groups F and G)  
 Easy Clean/BISSC—\$1073  
 50 Hz—\$248

### Belt Case

XT—\$233  
 XT w/Screened Belt Case  
 Opening—\$233 (2)  
 Chromalife Discs—\$230

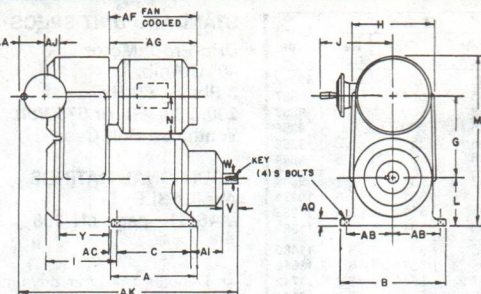
### Controls

ERC—\$953  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

Food & Chem Pak—\$1537  
 (Refer to page M1-84 for more  
 information)

Refer to Page M1-1 for additional  
 information on modifications  
 available.

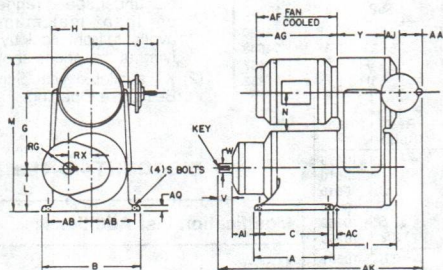
# 5 HP Parallel Dimensions



Assembly 100 Standard

## Vertical No Reducer

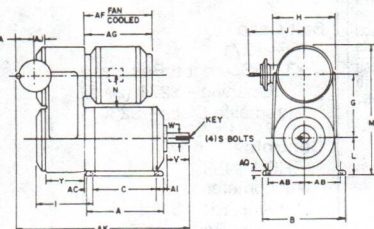
Size	A	B	C	G	H	I	J
400	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>11</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
400	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ		
400	5	8 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>		
Size	AK	AQ	Key				
400	41 <sup>11</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	3 <sup>8</sup> sq. x 37 <sup>1</sup> / <sub>16</sub>				



Assembly 101

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
441	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>
451	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
441	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>4</sub>	4 <sup>9</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>
451	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
441	5	8 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	41 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
451	5	8 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>16</sub>	47 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>
Size	RG	RX	Key				
441	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>3</sup> / <sub>8</sub>				
451	5 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>1</sup> / <sub>16</sub>				



Assembly 105

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
442	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>
452, 453, 453H	21 <sup>5</sup> / <sub>8</sub>	23	18 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
442	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>
452, 453, 453H	10 <sup>9</sup> / <sub>8</sub>	35 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	7 <sup>6</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	9 <sup>1</sup> / <sub>4</sub>
Size	AA	AB	AC	AI	AJ	AK	AQ
442	5	8 <sup>1</sup> / <sub>4</sub>	11 <sup>9</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	42 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>
452, 453, 453H	5	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	23 <sup>1</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	44 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
442	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>1</sup> / <sub>16</sub>						
452, 453, 453H	3 <sup>4</sup> / <sub>4</sub> sq. x 4 <sup>1</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 20 HP Parallel MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
3940(2)	1970	551	1.5	1313	551	1.5	985	551	1.5	\$9992
3220(2)	1610	551	1.5	1073	551	1.5	805	551*	1.5	9837
2630(2)	1315	500		876	500		658	500		9359
2150	1075	500		716	500		538	500*		9359
1750	875	500*		583	500*		438	551*	1.2	9359
1430	715	551*	1.5	476	551	1.5	358	551	1.8	9849
1170	585	551	1.8	390	551	1.8	293	551	2.2	9849
950	475	551	2.2	317	551	2.2	238	551	2.8	10274
780	390	551	2.8	260	551	2.8	195	551	3.4	11253
640	320	551	3.4	213	551	3.4	160	551	4.1	11362
520	260	551	4.1	173	551	4.1	130	551	5.1	11480
420	210	551	5.1	140	551	5.1	105	551	6.2	11618
350	175	551	6.2	117	551	6.2	87.5	551*	6.2	11742
280	140	551*	6.2	93.3	551*	6.2	70	552	9.3	12142
230	115	552	9.3	76.7	552	9.3	57.5	552	11.4	12367
190	95	552	11.4	63.3	552	11.4	47.5	552	14.0	12588
155	77.5	552	14.0	51.7	552	14.0	38.8	552	17.1	12830
125	62.5	552	17.1	41.7	552	17.1	31.3	552	20.9	13152
100	50	552	20.9	33.3	552	20.9	25	552	25.6	13475
84	42	552	25.6	28	552	25.6	21	552	31.4	13780
68	34	553	38.4	22.7	553	38.4	17	553	38.4	14220
56	28	553	38.4	18.7	553	38.4	14	553	47.1	14643
45	22.5	553	47.1	15	553	47.1	11.3	553H	57.7	15187
37	18.5	553H	57.7	12.3	553H	57.7	9.25	553H	70.6	15832

Max. rpm	5 to 1 (2)			List Price	Maximum (2)				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
3940(2)	788	551*	1.5	\$10415	3990	600	551*	1.5	\$10415
3220(2)	644	551*	1.5	\$10257	2660	400	500*		9610
2630(2)	526	500*		\$782	2160	325	551*	1.2	9610
2150	430	551*	1.2	\$782	1775	267	551*	1.5	9610
1750	350	551*	1.5	\$782	1445	217	551*	1.8	\$10269
1430	286	551*	1.8	\$10269	1180	178	551*	2.2	10269
1170	236	551*	2.2	\$10269	960	145	551*	2.8	10689
950	190	551*	2.8	\$10695	785	118	551*	3.4	11673
780	156	551*	3.4	\$11673	643	96.8	551*	4.1	11785
640	128	551*	4.1	\$11785	525	79	551*	5.1	11903
520	104	551*	5.1	\$11903	428	64.5	551*	6.2	\$12039
420	84	551*	6.2	\$12039	351	52.7	552*	7.6	\$12165
350	70	552*	7.6	\$12165	286	43	552*	9.3	\$12565
280	56	552*	9.3	\$12565	233	35.1	552*	11.4	\$12790
230	46	552*	11.4	\$12790	190	28.6	552*	14.0	\$13011
190	38	552*	14.0	\$13011	155	23.4	552*	17.1	\$13253
155	31	552*	17.1	\$13253	127	19.2	552*	20.9	\$13573
125	25	552*	20.9	\$13573	104	15.7	552*	25.6	\$13898
100	20	552*	25.6	\$13898	85	12.7	552*	31.4	\$14203
84	16.8	552*	31.4	\$14203	69	10.4	553*	38.4	\$14643
68	13.6	553*	38.4	\$14643	56	8.5	553*	47.1	\$15066
56	11.2	553*	47.1	\$15066	46	6.93	553H*	57.7	\$15610
45	9	553H*	57.7	\$15610	37	5.66	553H*	70.6	\$16252
37	7.4	553H*	70.6	\$16252					....

## STANDARD UNIT SPECS

**Drip-Proof Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**Ventilated Belt Case**

**ADDITIONAL RATINGS AVAILABLE:**  
**MAS 51—page M1-108**

\* Denotes 1140 rpm drive motor.

(1) Shaded selections under Maximum Speed Range column show output speed carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

(2) XT available with Screened Belt Case Opening.

## DISCOUNT—D-49a

### Modification List Additions

#### Motor

TEFC—\$889  
 XTFC—\$967  
 XPFC—\$1275  
 (Class I Group D, and Class II Groups F and G)  
 Easy Clean/BISSC—\$1099  
 50 Hz—\$328

#### Belt Case

XT—\$271  
 XT w/Screened Belt Case Opening—\$271 (2)  
 Chromalife Discs—\$230

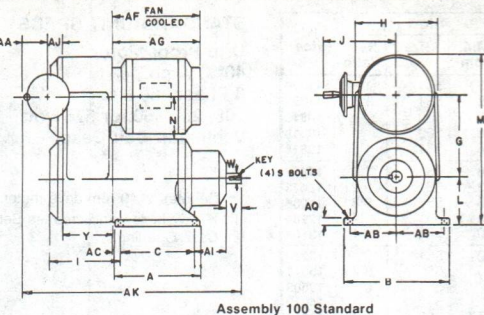
#### Controls

ERC—\$953  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

Food & Chem Pak—\$1600  
 (Refer to page M1-84 for more information)

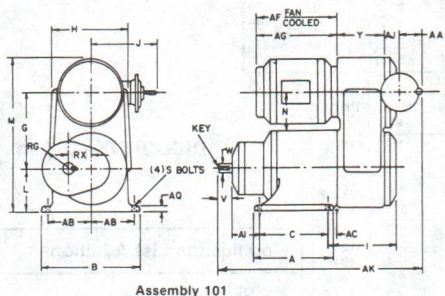
Refer to Page M1-1 for additional information on modifications available.

# 20 HP Parallel Dimensions



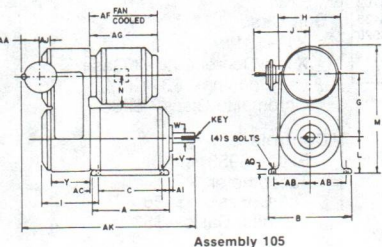
## Vertical No Reducer

Size	A	B	C	G	H	I	J
500	20½	23	18	19⅝	17¼	157/16	147/8
Size	L	M	N	S	V	W	Y
500	10⅝	387/16	10⅝	7/8	57/8	2	11
Size	AA	AB	AC	AI	AJ		
500	6	10¼	1½	4	37/16		
Size	AK	AQ	Key				
500	4913/16	1½	½ sq. × 4¾				



## Vertical Single Reducer

Size	A	B	C	G	H	I	J
551	20½	23	18	19⅝	17¼	157/16	147/8
Size	L	M	N	S	V	W	Y
551	10⅝	387/16	10⅝	7/8	5⅝	2½	11
Size	AA	AB	AC	AI	AJ	AK	AQ
551	6	10¼	1½	4	37/16	491/16	1½
Size	RG	RX	Key				
551	57/8	5⅝	⅝ sq. × 31⅝				



## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
552, 553, 553H	21⅝	23	18½	19⅝	17¼	1611/16	147/8
Size	L	M	N	S	V	W	Y
552, 553, 553H	10⅝	387/16	9⅝	7/8	6⅝	3	11
Size	AA	AB	AC	AI	AJ	AK	AQ
552, 553, 553H	6	10¼	2¾	2¾	37/16	50	1½
Size	Key						
552, 553, 553H	¾ sq. × 41⅝						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 25 HP Parallel MOTO DRIVE

Max. rpm	2 to 1			3 to 1			4 to 1 (1)			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
3940(1)	1970	551	1.5	1313	551	1.5	985	551	1.5	\$11538
3220(1)	1610	551	1.5	1073	551	1.5	805	551	1.5	11359
2630(1)	1315	500	.....	876	500	.....	658	500	.....	10818
2150(1)	1075	500	.....	716	500	.....	538	500*	.....	10818
1720	875	500	.....	583	500*	.....	438	551	1.5	10818
1430	715	551	1.5	476	551	1.5	358	551	1.8	11423
1170	585	551	1.8	390	551	1.8	293	551	2.2	11423
950	475	551	2.2	317	551	2.2	238	551	2.8	11909
780	390	551	2.8	260	551	2.8	195	551	3.4	12980
640	320	551	3.4	213	551	3.4	160	551	4.1	13106
520	260	551	4.1	173	551	4.1	130	551	5.1	13230
420	210	551	5.1	140	551	5.1	105	551	6.2	13371
350	175	561	6.2	117	561	6.2	87.5	551*	6.2	13509
280	140	561	6.2	93.3	561*	6.2	70	552	9.3	14019
230	115	552	9.3	76.7	552	9.3	57.5	552	11.7	14258
190	95	552	11.4	63.3	552	11.4	47.5	552	14.0	14514
155	77.5	552	14.0	51.7	552	14.0	38.8	552	17.1	14799
125	62.5	552	17.1	41.7	552	17.1	31.3	552	20.9	15196
100	50	552	20.9	33.3	552	20.9	25	552	25.6	15610
84	42	552H	25.6	28	552H	25.6	21	552H	31.4	15944
68	34	552H	31.4	22.7	552H	31.4	17	552H*	31.4	16428
56	28	552H	31.4	18.7	552H	31.4	14	552H*	31.4	16923

Max. rpm	5 to 1 (1)			List Price	Maximum (1)				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
3940(1)	788	551*	1.5	\$12027	3990	600	551*	1.5	\$12027
3220(1)	644	551*	1.5	11849	2660	400	500*	.....	11308
2630(1)	526	500*	.....	11308	2160	325	551*	1.2	11308
2150(1)	430	551*	1.2	11308	1775	267	551*	1.5	11308
1750	350	551*	1.5	11308	1445	217	551*	1.8	11915
1430	286	551*	1.8	11915	1180	178	551*	2.2	11915
1170	234	551*	2.2	11915	960	145	551*	2.8	12401
950	190	551*	2.8	12401	785	118	551*	3.4	13472
780	156	551*	3.4	13472	643	96.8	551*	4.1	13596
640	128	551*	4.1	13596	525	79	551*	5.1	13722
520	104	551*	5.1	13722	428	64.5	551*	6.2	13863
420	84	551*	6.2	13863	351	52.7	552*	7.6	13999
350	70	552*	7.6	13999	286	43	552*	9.3	14019
280	56	552*	9.3	14019	233	35.1	552*	11.4	14750
230	46	552*	11.5	14750	190	28.6	552*	14.0	15006
190	38	552*	14.0	15006	155	23.4	552*	17.1	15291
155	31	552*	17.1	15291	127	19.2	552*	20.9	15685
125	25	552*	20.9	15685	104	15.7	552*	25.6	16102
100	20	552*	25.6	16102	85	12.7	552H*	31.4	16436
84	16.8	552H*	31.4	16436	69	10.4	553*	38.4	16920
68	13.6	553*	38.4	16920	.....	.....	.....	.....	.....
56	.....	.....	.....	.....	.....	.....	.....	.....	.....

## STANDARD UNIT SPECS

**Drip-Proof Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**Ventilated Belt Case**

- \* Denotes 1140 rpm drive motor.  
 (1) XT available with Screened Belt Case Opening.

## DISCOUNT—D-49a

### Modification List Additions

#### Motor

TEFC—\$1436  
 XTFC—\$1548  
 XPFC—\$2003  
 (Class I Group D, and Class II Groups F and G)  
 50 Hz—\$653

#### Belt Case

XT—\$311  
 XT w/Screened Belt Case Opening—\$311 (1)  
 Chromalife Discs—\$230

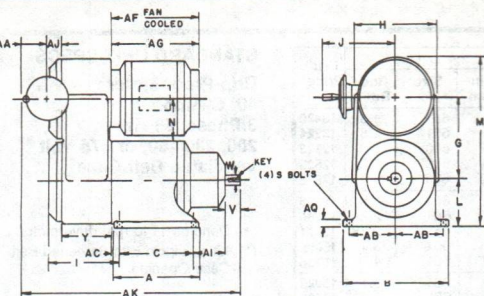
#### Controls

ERC—\$953  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

Food & Chem Pak—\$2089  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

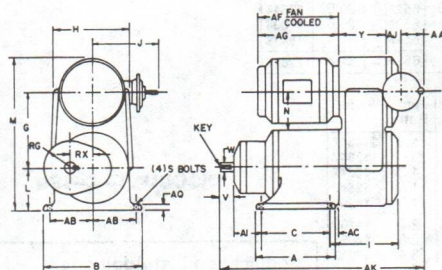
# 25 HP Parallel Dimensions



Assembly 100 Standard

## Vertical No Reducer

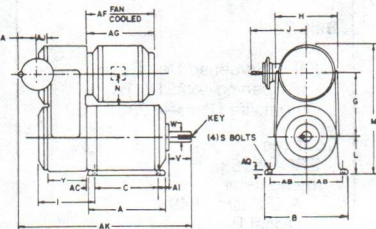
Size	A	B	C	G	H	I	J
500	20½	23	18	19⅝	17¼	157⅓	147⅝
Size	L	M	N	S	V	W	Y
500	10⅝	387⅓	10⅝	7⅝	57⅝	2	11
Size	AA	AB	AC	AI	AJ		
500	6	10¼	1½	4	37⅓		
Size	AK	AQ	Key				
500	49⅓⅓	1½	½ sq. x 4¾				



Assembly 101

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
551	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	157 <sup>1</sup> / <sub>16</sub>	147 <sup>5</sup> / <sub>8</sub>
561	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	157 <sup>1</sup> / <sub>16</sub>	147 <sup>5</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
551	10 <sup>5</sup> / <sub>8</sub>	387 <sup>1</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	51 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	11
561	10 <sup>5</sup> / <sub>8</sub>	387 <sup>1</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	57 <sup>5</sup> / <sub>8</sub>	27 <sup>5</sup> / <sub>8</sub>	11
Size	AA	AB	AC	AI	AJ	AK	AQ
551	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	4	37 <sup>1</sup> / <sub>16</sub>	49 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
561	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	10	37 <sup>1</sup> / <sub>16</sub>	55 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
Size	RG	RX	Key				
551	57 <sup>5</sup> / <sub>8</sub>	51 <sup>5</sup> / <sub>8</sub>	5/8 sq. x 3 <sup>15</sup> / <sub>16</sub>				
561	7	63 <sup>1</sup> / <sub>16</sub>	3/4 sq. x 4 <sup>5</sup> / <sub>8</sub>				



Assembly 105

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
552, 552H 553	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	161 <sup>1</sup> / <sub>16</sub>	147 <sup>5</sup> / <sub>8</sub>
Size	L	M	N	S	V	W	Y
552, 552H 553	10 <sup>5</sup> / <sub>8</sub>	387 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	61 <sup>5</sup> / <sub>8</sub>	3	11
Size	AA	AB	AC	AI	AJ	AK	AQ
552, 552H 553	6	10 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	23 <sup>1</sup> / <sub>16</sub>	37 <sup>1</sup> / <sub>16</sub>	50	1 <sup>1</sup> / <sub>2</sub>
Size	Key						
552, 552H 553	3/4 sq. x 4 <sup>15</sup> / <sub>16</sub>						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flów, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 30 HP Parallel MOTO DRIVE

Max. rpm	2 to 1			3 to 1			4 to 1(1)			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
3940(1)	1970	661	1.5	1313	661	1.5	985	661	1.5	\$13420
3220(1)	1610	661	1.5	1073	661	1.5	805	661*	1.5	13224
2630(1)	1315	600	.....	876	600	.....	658	600	.....	12623
2150	1075	600	.....	716	600	.....	538	600*	.....	12623
1750	875	600*	.....	583	600*	.....	438	600*	.....	12623
1430	715	661	1.5	476	661	1.5	358	661	1.8	13285
1170	585	661	1.8	390	661	1.8	293	661	2.2	13285
950	475	661	2.2	317	661	2.2	238	661	2.8	13771
780	390	661	2.8	260	661	2.8	195	661	3.4	15009
640	320	661	3.4	213	661	3.4	160	661	4.1	15158
520	260	661	4.1	173	661	4.1	130	661	5.1	15325
420	210	661	5.1	140	661	5.1	105	661	6.2	15501
350	175	661	6.2	117	661	6.2	87.5	661*	6.2	15659
280	140	652	7.6	93.3	652	7.6	70	652	9.3	16209
230	115	652	9.3	76.7	652	9.3	57.5	652	11.4	16508
190	95	652	11.4	63.3	652	11.4	47.5	652	14.0	16802
155	77.5	652	14.0	51.7	652	14.0	38.8	652	17.1	17167
125	62.5	652H	17.1	41.7	652H	17.1	31.3	652H	20.9	17544
100	50	652H	20.9	33.3	652H	20.9	25	652H	25.6	18034
84	42	652H	25.6	28	652H	25.6	21	652H	31.4	18439
68	34	652H	31.4	22.7	652H	31.4	17	652H*	31.4	19018

## STANDARD UNIT SPECS

**Drip-Proof Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**Ventilated Belt Case**

- \* Denotes 1140 rpm drive motor.  
 (1) XT available with Screened Belt Case Opening.

Max. rpm	5 to 1(1)			List Price	Maximum (1)				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
3940(1)	788	661*	1.5	\$14347	3990	630	661*	1.5	\$14347
3220(1)	644	661*	1.5	14148	2660	420	600*	.....	13547
2630(1)	526	600*	.....	13547	2160	342	661*	1.2	13547
2150	430	600*	.....	13547	1775	280	661*	1.5	13547
1750	350	661*	1.5	13547	1445	228	661*	1.8	14209
1430	286	661*	1.8	14209	1180	187	661*	2.2	14209
1170	234	661*	2.2	14209	960	152	661*	2.8	14695
950	190	661*	2.8	14695	785	124	661*	3.4	15933
780	156	661*	3.4	15933	643	102	661*	4.1	16082
640	128	661*	4.1	16082	525	83	661*	5.1	16249
520	104	661*	5.1	16249	428	67.8	661*	6.2	16425
420	84	661*	6.2	16425	351	55.3	652*	7.6	16563
350	70	661*	7.6	16563	286	45.2	652*	9.3	17133
280	56	652*	9.3	17133	233	36.8	652*	11.4	17432
230	46	652*	11.4	17432	190	30	652*	14.0	17726
190	38	652*	14.0	17726	155	24.5	652*	17.1	18091
155	31	652*	17.1	18091	127	20.1	652H*	20.9	18468
125	25	652H*	20.9	18468	104	16.4	652H*	25.6	18960
100	20	652H*	25.6	18960	85	13.4	652H*	31.4	19363
84	16.8	652H*	31.4	19363	.....	.....	.....	.....	.....
68	13.6	652H*	31.4	19942	.....	.....	.....	.....	.....

## DISCOUNT—D-49a

### Modification List Additions

#### Motor

TEFC—\$1499  
 XTFC—\$1615  
 XPFC—\$2069  
 (Class I Group D, and Class II Groups F and G)  
 50 Hz—\$1050

#### Belt Case

XT—\$351  
 XT w/Screened Belt Case Opening—\$351 (1)  
 Chromalife Discs—\$230

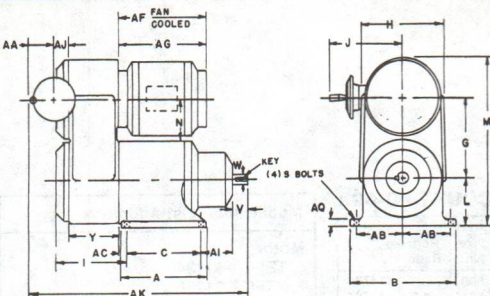
#### Controls

ERC—\$953  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

Food & Chem Pak—\$2196  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

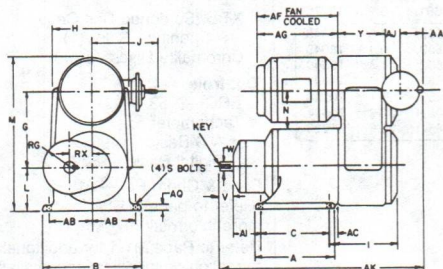
# 30 HP Parallel Dimensions



Assembly 100 Standard

## Vertical No Reducer

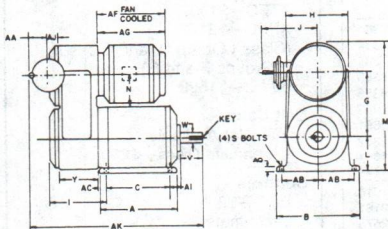
Size	A	B	C	G	H	I	J
600	24½	23½	22	20¾	18½	16⅞	14⅞
Size	L	M	N	S	V	W	Y
600	10⅝	40⅞	11⅞	7⅞	7	2⅝	11½
Size	AA	AB	AC	AI	AJ		
600	7	10½	1½	41⅞	4¾		
Size	AK	AQ	Key				
600	58⅞	1½	⅝ sq. × 5⅞				



Assembly 101

## Vertical Single Reducer

Size	A	B	C	G	H	I	J
661	24 $\frac{1}{2}$	23 $\frac{1}{2}$	22	20 $\frac{3}{4}$	18 $\frac{1}{2}$	16 $\frac{1}{16}$	14 $\frac{7}{8}$
Size	L	M	N	S	V	W	Y
661	10 $\frac{5}{8}$	40 $\frac{1}{8}$	11 $\frac{9}{16}$	$\frac{7}{8}$	5 $\frac{7}{8}$	2 $\frac{7}{8}$	11 $\frac{1}{2}$
Size	AA	AB	AC	AI	AJ	AK	AQ
661	7	10 $\frac{1}{2}$	1 $\frac{1}{2}$	4 $\frac{11}{16}$	4 $\frac{3}{4}$	57 $\frac{5}{16}$	1 $\frac{1}{2}$
Size	RG	RX	Key				
661	7	6 $\frac{3}{16}$	$\frac{3}{4}$ sq. $\times$ 4 $\frac{5}{8}$				



Assembly 105

## Vertical Double and Triple Reducers

Size	A	B	C	G	H	I	J
652, 652H	21 $\frac{5}{16}$	23	18 $\frac{1}{2}$	20 $\frac{3}{4}$	18 $\frac{1}{2}$	22 $\frac{3}{16}$	14 $\frac{7}{8}$
Size	L	M	N	S	V	W	Y
652, 652H	10 $\frac{5}{8}$	40 $\frac{1}{8}$	10 $\frac{1}{4}$	$\frac{7}{8}$	6 $\frac{1}{8}$	3	11 $\frac{1}{2}$
Size	AA	AB	AC	AI	AJ	AK	AQ
652, 652H	7	10 $\frac{1}{4}$	7 $\frac{5}{8}$	2 $\frac{3}{16}$	4 $\frac{3}{4}$	57 $\frac{11}{16}$	1 $\frac{1}{2}$
Size	Key						
652, 652H	$\frac{3}{4}$ sq. $\times$ 4 $\frac{15}{16}$						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 40 HP & 50 Parallel MOTO DRIVES

## STANDARD UNIT SPECS

Drip-Proof Motor  
40° C Amb.  
3 Phase, 60 Hz  
200, 230/460, or 575 Volt  
Ventilated Belt Case

### 40 HP

### DISCOUNT—D-49a

Max. rpm	2 to 1			3 to 1			4 to 1 (1)			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
2630(1)	1315	600	...	876	600	...	658	600	...	\$14784
2150	1075	600	...	716	600	...	538	661	1.2	14784
1750	875	661	1.2	583	661	1.2	438	661	1.5	14784
1430	715	661	1.5	476	661	1.5	358	661	1.8	15602
1170	585	661	1.8	390	661	1.8	293	661	2.2	15602
950	475	661	2.2	317	661	2.2	238	661	2.8	16140
780	390	661	2.8	260	661	2.8	195	661	3.4	17703
640	320	661	3.4	213	661	3.4	160	661	4.1	17867
520	260	661	4.1	173	661	4.1	130	661	5.1	18054
420	210	661	5.1	140	661	5.1	105	661	6.2	18270
350	175	652	7.6	117	652	7.6	87.5	652	7.6	18445
280	140	652	7.6	93.3	652	7.6	70	652	9.3	18949
230	115	652	9.3	76.7	652	9.3	57.5	652	11.4	19340
190	95	652	11.4	63.3	652	11.4	47.5	652H	14.0	19691
155	77.5	652H	14.0	51.7	652H	14.0	38.8	652H	17.1	20120
125	62.5	652H	17.1	41.7	652H	17.1	31.3	652H	20.9	20624
100	50	652H	20.9	33.3	652H	20.9	25	652H	25.6	21225

(1) XT available with Screened Belt Case Opening.

### Modification List Additions

#### Motor

TEFC—\$1134  
XTFC—\$1266  
XPFC—\$1885  
(Class I Group D, and Class II Groups F and G)  
50 Hz—\$1131

#### Belt Case

XT—\$389  
XT w/Screened Belt Case Opening—\$389 (1)  
Chromalife Discs—\$230

#### Controls

ERC—\$953  
Tachometer  
A-C Basic—\$498  
Digital Basic—\$577

Food & Chem Pak—\$1885  
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

### 50 HP

### DISCOUNT—D-49a

2 to 1				Maximum				List Price
Max. rpm	Min. rpm	Size No.	Red. Ratio	Max. rpm	Min. rpm	Size No.	Red. Ratio	
2630	1315	600K	...	2750	860	600K	...	\$17334
2150	1075	600K	...	2236	700	661K	1.2	17334
1750	875	661K	1.2	1833	573	661K	1.5	17334
1430	715	661K	1.5	1495	467	661K	1.8	18365
1170	585	661K	1.8	1222	382	661K	2.2	18365
950	475	661K	2.2	996	312	661K	2.8	18963
780	390	661K	2.8	814	255	661K	3.4	20661
640	320	661K	3.4	666	208	661K	4.1	20822
520	260	661K	4.1	543	170	652K	5.1	21061
420	210	652K	5.1	444	139	652K	6.2	21294
350	175	652K	6.2	362	113	652K	7.6	21510
280	140	652K	7.6	296	92.5	652K	9.3	22161
230	115	652K	9.3	241	75.5	652K	11.4	22575
190	95	652K	11.4	197	61.5	652K	13.9	23010
155	77.5	652K	13.9	161	50.3	652K	17.1	23525

### Modification List Additions

#### Motor

TEFC—\$1361  
XTFC—\$1497  
XPFC—\$2158  
(Class I Group D, and Class II Groups F and G)  
50 Hz—\$1590

#### Belt Case

XT—Not Available  
Chromalife Discs—\$230

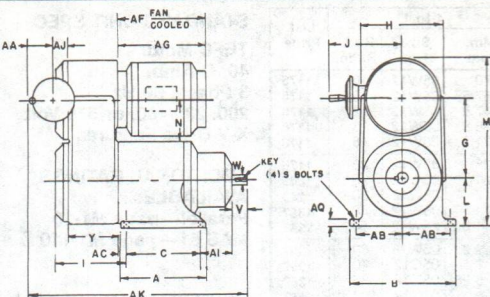
#### Controls

ERC—\$953  
Tachometer  
A-C Basic—\$498  
Digital Basic—\$577

Food & Chem Pak—NA

Refer to Page M1-1 for additional information on modifications available.

# 40 HP & 50 HP Parallel Dimensions

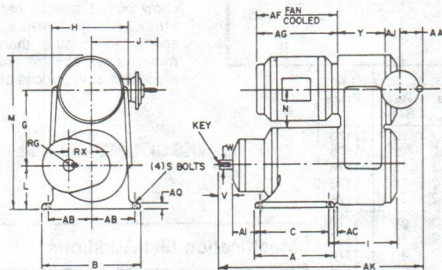


Assembly 100 Standard

## Vertical No Reducer

Size	A	B	C	G	H	I	J
600 & 600K	24½	23½	22	20¾	18½	16⅞	14⅞
Size	L	M	N	S	V	W	Y
600 & 600K	10⅝	40⅞	11⅞	7⅞	7	2⅜	11½
Size	AA	AB	AC	AI	AJ		
600 & 600K	7	10½	1½	4⅞	4¾		
Size	AK	AQ	Key				
600 & 600K	58⅞	1½	5⅞ sq. x 5⅞				

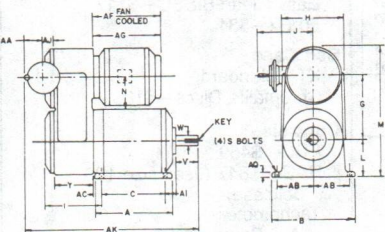
## Vertical Single Reducer



Assembly 101

Size	A	B	C	G	H	I	J
661 & 661K	24 $\frac{1}{2}$	23 $\frac{1}{2}$	22	20 $\frac{3}{4}$	18 $\frac{1}{2}$	16 $\frac{1}{16}$	14 $\frac{7}{8}$
Size	L	M	N	S	V	W	Y
661 & 661K	10 $\frac{5}{8}$	40 $\frac{1}{8}$	11 $\frac{9}{16}$	$\frac{7}{8}$	5 $\frac{7}{8}$	2 $\frac{7}{8}$	11 $\frac{1}{2}$
Size	AA	AB	AC	AI	AJ	AK	AQ
661 & 661K	7	10 $\frac{1}{2}$	1 $\frac{1}{2}$	4 $\frac{11}{16}$	4 $\frac{3}{4}$	57 $\frac{9}{16}$	1 $\frac{1}{2}$
Size	RG	RX	Key				
661 & 661K	7	6 $\frac{3}{16}$	$\frac{3}{4}$ sq. $\times$ 4 $\frac{5}{8}$				

## Vertical Double and Triple Reducers



Assembly 105

Size	A	B	C	G	H	I	J
652, 652H 652K	21 $\frac{5}{16}$	23	18 $\frac{1}{2}$	20 $\frac{3}{4}$	18 $\frac{1}{2}$	22 $\frac{3}{16}$	14 $\frac{7}{8}$
Size	L	M	N	S	V	W	Y
652, 652H 652K	10 $\frac{5}{8}$	40 $\frac{1}{8}$	10 $\frac{1}{4}$	$\frac{7}{8}$	6 $\frac{1}{8}$	3	11 $\frac{1}{2}$
Size	AA	AB	AC	AI	AJ	AK	AQ
652, 652H 652K	7	10 $\frac{1}{4}$	7 $\frac{5}{8}$	2 $\frac{3}{16}$	4 $\frac{3}{4}$	57 $\frac{11}{16}$	1 $\frac{1}{2}$
Size	Key						
652, 652H 652K	$\frac{3}{4}$ sq. $\times$ 4 $\frac{15}{16}$						

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 1/4 HP Right Angle MOTO DRIVE (1) (2)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
280	140	05W12	10	93.3	05W12	10	70	05W12	10	\$1176
230	115	05W12	10	76.7	05W12	10	57.5	05W12	10	1176
190	95	05W12	10	63.3	05W12	10	47.5	05W12	12.7	1176
155	77.5	05W12	12.7	51.7	05W12	12.7	38.8	05W12	15	1176
125	62.5	05W12	15	41.7	05W12	15	31.3	05W12	18	1176
100	50	05W12	18	33.3	05W12	18	25	05W12	20	1176
84	42	05W12	20	28	05W12	20	21	05W12	25	1243
68	34	05W12	25	22.7	05W12	25	17	05W12	30	1243
56	28	05W12	30	18.7	05W12	30	14	05W12	40	1357
45	22.5	05W12	40	15	05W12	40	11.3	05W12	50	1357
37	18.5	05W12	40	12.3	05W12	40	9.25	05W16	60	1357
30	15	05W12	50	10	05W12	50	7.5	05C12	70	1357
25	12.5	05W16	60	8.33	05W16	60	6.25	05C12	86	1357
20	10	05C12	70	6.67	05C12	86	5	05C12	101	1357
16.5	8.25	05C12	86	5.5	05C12	101	4.13	05C12	121	1473
13.5	6.75	05C12	101	4.5	05C12	121	3.38	05C12	162	1473
11.0	5.5	05C12	121	3.67	05C12	162	2.75	05C12	162	1473
9.0	4.5	05C12	162	3.0	05C12	162	2.25	05C12	240	1473
7.5	3.75	1C16	192	2.5	1C16	240	1.86	1C16	288	1551
6.0	3.0	1C16	192	2	1C16	288	1.5	1C16*	288	1551
5.0	2.5	1C16	240	1.67	1C16*	240	1.25	1C16*	288	1551
4.0	2.0	1C16	288	1.33	1C16*	240	.....	.....	.....	.....

## STANDARD UNIT SPEC

### TEFC Motor

40° C Amb.

3 Phase, 60 Hz

200, 230/460, or 575 Volt

X-V Drive Features

## ADDITIONAL RATINGS

AVAILABLE:

Parallel—page M1-10

MAS 51—page M1-110

\* Denotes 1140 rpm Drive Motor

(1) See pages M1-203 and M1-204 for output torque and horse power ratings.

(2) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
280	56	05W12	10	\$1176	485	48.5	05W12	10	\$1176
230	46	05W12	12.7	1176	383	38.3	05W12	12.7	1176
190	38	05W12	15	1176	323	32.3	05W12	15	1176
155	31	05W12	18	1176	270	27.0	05W12	18	1176
125	25	05W12	20	1176	242	24.2	05W12	20	1176
100	20	05W12	25	1176	194	19.4	05W12	25	1176
84	16.8	05W12	30	1243	162	16.2	05W12	30	1176
68	13.6	05W12	40	1243	121	12.1	05W12	40	1176
56	11.2	05W12	50	1357	97.0	9.7	05W12	50	1176
45	9.0	05W16	60	1357	81	8.1	05W16	60	1243
37	7.4	05C12	70	1357	69.2	6.92	05C12	70	1357
30	6.0	05C12	86	1357	56.5	5.65	05C12	86	1357
25	5.0	05C12	101	1357	48.0	4.80	05C12	101	1357
20	4.0	05C12	121	1357	40.0	4.00	05C12	121	1357
16.5	3.3	05C12	162	1473	33.6	3.36	05C12	144	1357
13.5	2.7	05C12	192	1473	30.0	3.00	056C12	162	1357
11.0	2.2	05C12	240	1473	25.2	2.52	056C12	192	1357
9.0	1.8	1C16	288	1551	20.2	2.02	056C12	240	1551
7.5	1.5	1C16	288	1551	16.2	1.62	1C16	288	1551
6.0	1.2	1C16*	288	1551	10.8	1.08	1C16*	288	1551
5.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
4.0	.....	.....	.....	.....	.....	.....	.....	.....	.....

## DISCOUNT—D-49a

## Modification List Additions

### Motor

SXTF—\$125

XPFC—\$167

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$117

50 Hz—\$31

### Belt Case

XT—Standard

Chromalife Discs—\$188

### Controls

ERC—\$459

RAC—\$847 (uses size 100 beltcase)

Tachometer

A-C Basic—\$498

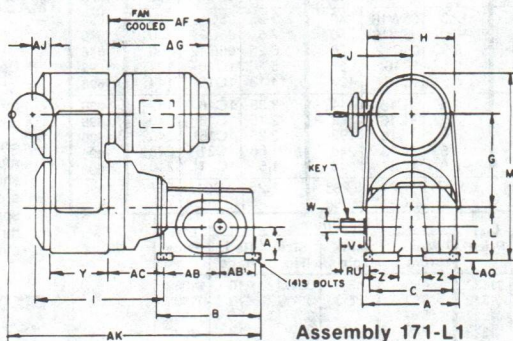
Digital Basic—\$577

Food & Chem Pak—\$304

(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Assembly 171-L1

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
05W12	5	5 $\frac{1}{4}$	4	6 $\frac{1}{2}$	6 $\frac{7}{16}$	10 $\frac{1}{8}$	5 $\frac{9}{16}$	3 $\frac{3}{4}$	13 $\frac{1}{8}$	5 $\frac{1}{16}$	11 $\frac{1}{16}$	3 $\frac{1}{4}$	4 $\frac{1}{4}$	17 $\frac{1}{16}$
05C12	6	8	5	6 $\frac{1}{2}$	6 $\frac{7}{16}$	10 $\frac{1}{8}$	5 $\frac{9}{16}$	4	13 $\frac{3}{8}$	5 $\frac{1}{16}$	2	7 $\frac{7}{8}$	4 $\frac{1}{4}$	2 $\frac{1}{8}$
05W16	5 $\frac{1}{2}$	6 $\frac{7}{8}$	4 $\frac{1}{2}$	6 $\frac{1}{2}$	6 $\frac{7}{16}$	9 $\frac{15}{16}$	5 $\frac{9}{16}$	4 $\frac{1}{2}$	13 $\frac{7}{8}$	3 $\frac{3}{8}$	2	7 $\frac{7}{8}$	4 $\frac{1}{4}$	1 $\frac{3}{4}$
1C16	7 $\frac{3}{4}$	10	6 $\frac{1}{2}$	7 $\frac{3}{4}$	8 $\frac{1}{2}$	12 $\frac{11}{16}$	6 $\frac{7}{8}$	5	16 $\frac{11}{16}$	3 $\frac{3}{8}$	2 $\frac{1}{2}$	1 $\frac{1}{8}$	5 $\frac{1}{4}$	3 $\frac{1}{8}$
Size	AA	AB	AB <sup>1</sup>	AC	AJ	AK	AQ	AT	RU	Key				
05W12	1 $\frac{1}{16}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$	4 $\frac{5}{8}$	13 $\frac{1}{16}$	16	9 $\frac{1}{16}$	2 $\frac{1}{4}$	2	3 $\frac{1}{16}$ sq. $\times$ 1				
05C12	1 $\frac{1}{16}$	4	3	4 $\frac{3}{4}$	13 $\frac{1}{16}$	18 $\frac{7}{8}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{5}{8}$	3 $\frac{1}{16}$ sq. $\times$ 1 $\frac{1}{4}$				
05W16	1 $\frac{1}{16}$	3	3	4 $\frac{9}{16}$	13 $\frac{1}{16}$	17 $\frac{9}{16}$	5 $\frac{5}{8}$	2 $\frac{1}{2}$	2 $\frac{5}{16}$	3 $\frac{1}{16}$ sq. $\times$ 1 $\frac{1}{4}$				
1C16	2	5 $\frac{1}{2}$	3 $\frac{1}{2}$	6 $\frac{1}{16}$	7 $\frac{7}{8}$	23 $\frac{11}{16}$	5 $\frac{5}{8}$	3	2 $\frac{7}{8}$	1 $\frac{1}{4}$ sq. $\times$ 1 $\frac{3}{4}$				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 1/2 HP Right Angle MOTO DRIVE (1) (2)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
280	140	05W12	10	93.3	05W12	10	70	05W12	10	\$1332
230	115	05W12	10	76.7	05W12	10	57.5	05W12	10	1332
190	95	05W12	10	63.3	05W12	10	47.5	05W12	12.7	1332
155	77.5	05W12	12.7	51.7	05W12	12.7	38.8	05W12	15	1398
125	62.5	05W12	15	41.7	05W12	15	31.3	05W12	18	1398
100	50	05W12	18	33.3	05W12	18	25	05W12	20	1398
84	42	05W12	18	28	05W12	18	21	05W16	25	1529
68	34	05W16	25	22.7	05W16	25	17	05W16	30	1529
56	28	05W16	30	18.7	05W16	30	14	05W16	40	1529
45	22.5	05W16	40	15	05W16	40	11.3	05W16	50	1529
37	18.5	05W16	40	12.3	05W16	40	9.25	05C12	70	1596
30	15	05W16	50	10.0	05C12	70	7.5	05C12	70	1596
25	12.5	05W12	70	8.33	05C12	86	6.25	05C12	86	1596
20	10	1C16	86	6.67	1C16	86	5	1C16	121	1596
16.5	8.25	1C16	101	5.5	1C16	121	4.13	1C16	144	1696
13.5	6.75	1C16	121	4.5	1C16	144	3.38	1C16	162	1696
11.0	5.5	1C16	121	3.67	1C16	162	2.75	1C16	240	1696
9.0	4.5	1C16	144	3.0	1C16	192	2.25	1C16	240	1696
7.5	3.75	1C16	192	2.5	1C16	240	1.88	1C21	288	1696
6.0	3.0	1C21	240	2.0	1C21	240	1.5	1C21*	240	1696
5.0	2.5	1C21	288	1.67	1C21	288	1.25	1C21*	288	1696
4.0	2.0	1C21*	288	1.33	1C21*	288	....	....	....	....

## STANDARD UNIT SPECS

**TEFC Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**X-V Drive Features**

## ADDITIONAL RATINGS

**AVAILABLE:**  
**Parallel—page M1-12**  
**MAS 51—page M1-111**

\* Denotes 1140 RPM Drive Motor

- (1) See pages M1-203 and M1-204 for output torque and horsepower ratings.
- (2) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
280	56	05W12	10	\$1332	485	48.5	05W12	10	\$1332
230	46	05W12	12.7	1332	383	38.3	05W12	12.7	1332
190	38	05W12	15	1332	323	32.3	05W12	15	1332
155	31	05W12	18	1398	270	27.0	05W12	18	1332
125	25	05W12	20	1398	242	24.2	05W12	20	1332
100	20	05W12	25	1398	194	19.4	05W12	25	1332
84	16.8	05W16	30	1529	162	16.2	05W16	30	1398
68	13.6	05W16	40	1529	121	12.1	05W16	40	1398
56	11.2	05W16	50	1529	97.0	9.7	05W16	50	1398
45	9.0	05W16	60	1529	81	8.1	05W16	60	1529
37	7.4	05C12	70	1596	69.2	6.92	05C12	70	1529
30	6.0	05C12	86	1596	56.5	5.65	05C12	86	1529
25	5.0	05C12	101	1596	48.0	4.80	05C12	101	1529
20	4.0	1C16	144	1662	38.5	3.85	1C16	121	1662
16.5	3.3	1C16	162	1696	32.4	3.24	1C16	144	1662
13.5	2.7	1C16	240	1696	28.8	2.88	1C16	162	1662
11.0	2.2	1C16	240	1696	24.3	2.43	1C16	192	1662
9.0	1.8	1C16	288	1696	19.4	1.94	1C16	240	1662
7.5	1.5	1C16*	240	1696	16.2	1.62	1C16	288	1696
6.0	1.2	1C21*	288	1696	10.8	1.08	1C16*	288	1696
5.0	....	....	....	....	....	....	....	....	....
4.0	....	....	....	....	....	....	....	....	....

## DISCOUNT—D-49a

## Modification List Additions

### Motor

**SXTF—\$125**  
**XPFC—\$167**  
 (Class I Group D, and Class II Groups F and G)  
**Easy Clean/BISSC—\$117**  
**50 Hz—\$36**

### Belt Case

**XT—Standard**  
**Chromalife Discs—\$188**

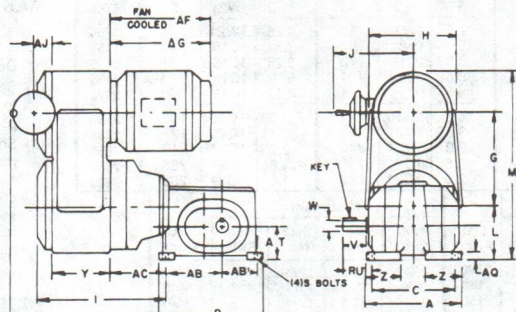
### Controls

**ERC—\$459**  
**RAC—\$847**(uses size 100 beltcase)  
**Tachometer**  
**A-C Basic—\$498**  
**Digital Basic—\$577**

**Food & Chem Pak—\$304**  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

Vertical Right Angle Reducer



Assembly 171-L1

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
05W12	5	5 1/4	4	6 1/2	6 7/16	10 1/8	5 9/16	3 3/4	13 1/8	5/16	1 11/16	3/4	4 1/4	1 7/16
05C12	6	8	5	6 1/2	6 7/16	10 1/8	5 9/16	4	13 3/8	5/16	2	7/8	4 1/4	2 1/8
05W16	5 1/2	6 7/8	4 1/2	6 1/2	6 7/16	9 15/16	5 9/16	4 1/2	13 7/8	3/8	2	7/8	4 1/4	1 3/4
1C16	7 3/4	10	6 1/2	7 3/4	8 1/2	12 1 1/16	6 7/8	5	16 1 1/16	3/8	2 1/2	1 1/8	5 1/4	3 1/8
1C21	9 1/4	12 1/4	8	7 3/4	8 1/2	12 13/16	6 7/8	6 5/8	18 5/16	1/2	3 1/4	1 1/2	5 1/4	3 1/2
Size	AA	AB	AB'	AC	AJ	AK	AQ	AT	RU	Key				
05W12	1 9/16	2 1/8	2 1/8	4 5/8	1 3/16	16	9/16	2 1/4	2	3/16 sq. x 1				
05C12	1 9/16	4	3	4 3/4	1 3/16	18 7/8	1/2	2 1/2	2 5/8	3/16 sq. x 1 1/4				
05W16	1 9/16	3	3	4 9/16	1 3/16	17 9/16	5/8	2 1/2	2 5/16	3/16 sq. x 1 1/4				
1C16	2	5 1/2	3 1/2	6 1/16	7/8	23 1 1/16	3	3	2 7/8	1/4 sq. x 1 3/4				
1C21	2	7	4	6 3/16	7/8	25 15/16	3/4	4	4	3/8 sq. x 2 1/2				

For AF and AG motor dimensions, refer to page M1-196.  
For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 3/4 HP Right Angle MOTO DRIVE (1) (2)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
280	140	1W16	10	93.3	1W16	10	70	1W16	10	\$1507
230	115	1W16	10	76.7	1W16	10	57.5	1W16	10	1507
190	95	1W16	10	63.3	1W16	10	47.5	1W16	12.7	1507
155	77.5	1W16	12.7	51.7	1W16	12.7	38.8	1W16	12.7	1507
125	62.5	1W16	15	41.7	1W16	15	31.3	1W16	18	1507
100	50	1W16	18	33.3	1W16	18	25	1W16	25	1621
84	42	1W16	25	28	1W16	25	21	1W16	30	1621
68	34	1W16	30	22.7	1W16	30	17	1W16	40	1754
56	28	1W21	40	18.7	1W21	40	14	1W21	40	1754
45	22.5	1W21	40	15	1W21	40	11.3	1W21	50	1754
37	18.5	1W21	50	12.3	1W21	50	9.25	1W21	60	1754
30	15	1W21	60	10	1W21	60	7.5	1C16	70	1754
25	12.5	1C16	70	8.33	1C16	70	6.25	1C16	86	2155
20	10	1C16	101	6.67	1C16	101	5	1C16	101	2155
16.5	8.25	1C16	121	5.5	1C16	121	4.13	1C16	121	2588
13.5	6.75	1C16	144	4.5	1C16	144	3.38	1C16	144	2588
11.0	5.5	1C21	162	3.67	1C21	162	2.75	1C21	192	2588
9.0	4.5	1C21	240	3.0	1C21	240	2.25	1C21	240	2588
7.5	3.75	1C21	240	2.5	1C21	240	1.88	1C21	288	2588
6.0	3.0	1C21	288	2.0	1C21	288	1.5	1C21*	288	2588

## STANDARD UNIT SPECS

**TEFC Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**X-V Drive Features**

## ADDITIONAL RATINGS AVAILABLE:

**Parallel—page M1-14**  
**MAS 51—page M1-112**

\* Denotes 1140 RPM Drive Motor

- (1) See pages M1-203 and M1-204 for output torque and horsepower ratings.
- (2) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
280	56	1W16	10	\$1507	466	46.6	1W16	10	\$1507
230	46	1W16	12.7	1507	368	36.8	1W16	12.7	1507
190	38	1W16	15	1507	311	31.1	1W16	15	1507
155	31	1W16	18	1507	259	25.9	1W16	18	1507
125	25	1W16	25	1507	233	23.3	1W16	20	1507
100	20	1W16	30	1621	186	18.6	1W16	25	1507
84	16.8	1W16	40	1621	155	15.5	1W16	30	1507
68	13.6	1W16	40	1754	117	11.7	1W21	40	1621
56	11.2	1W21	50	1754	93.2	9.32	1W21	50	1621
45	9.0	1W21	60	1754	77.7	7.77	1W21	60	1621
37	7.4	1C16	86	1754	66.6	6.66	1C16	70	1754
30	6.0	1C16	101	1754	54.2	5.42	1C16	86	1754
25	5.0	1C16	121	2155	46.1	4.61	1C16	101	1754
20	4.0	1C16	144	2155	38.5	3.85	1C16	121	1754
16.5	3.3	1C16	162	2588	32.4	3.24	1C16	144	1754
13.5	2.7	1C16	192	2588	28.8	2.88	1C21	162	2155
11.0	2.2	1C21	240	2588	24.3	2.43	1C16	192	2155
9.0	1.8	1C21	288	2588	19.4	1.94	1C16	240	2155
7.5	1.5	1C21	288	2588	16.2	1.62	1C21	288	2155
6.0	1.2	1C21	288	2588	10.8	1.08	1C21*	288	2155

## DISCOUNT—D-49a

## Modification List Additions

### Motor

SXTF—\$125  
 XPFC—\$183  
 (Class I Group D, and Class II Groups F and G)  
 Easy Clean/BISSC—\$117  
 50 Hz—\$47

### Belt Case

XT—Standard  
 Chromalife Discs—\$188

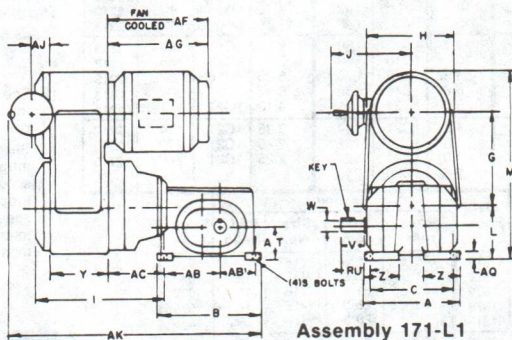
### Controls

ERC—\$459  
 RAC—\$847  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

Food & Chem Pak—\$304  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Assembly 171-L1

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
1W16	5 1/2	6 7/8	4 1/2	7 3/4	8 1/2	12 9/16	6 7/8	4 1/2	16 3/16	3/8	2	7/8	5 1/4	1 3/4
1C16	7 3/4	10	6 1/2	7 3/4	8 1/2	12 11/16	6 7/8	5	16 11/16	3/8	2 1/2	1 1/8	5 1/8	3 1/8
1W21	8	8	7	7 3/4	8 1/2	12 13/16	6 7/8	6	17 11/16	3/8	2 1/2	1 1/8	5 1/4	2 5/8
1C21	9 1/4	12 1/4	8	7 3/4	8 1/2	12 13/16	6 7/8	6 5/8	18 5/16	1/2	3 1/4	1 1/2	5 1/4	3 1/2
Size	AA	AB	AB'	AC	AJ	AK	AQ	AT	RU	Key				
1W16	2	3	3	5 15/16	7/8	20 1/2	5/8	2 1/2	25 1/8	3/16 sq. x 1 1/4				
1C16	2	5 1/2	3 1/2	6 1/16	7/8	23 11/16	5/8	3	27 7/8	1/4 sq. x 1 3/4				
1W21	2	3 1/2	3 1/2	6 3/16	7/8	21 13/16	5/8	3 3/8	2 1/2	1/4 sq. x 1 3/4				
1C21	2	7	4	6 3/16	7/8	25 15/16	3/4	4	4	3/8 sq. x 2 1/2				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 1 HP Right Angle MOTO DRIVE (1) (2)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
280	140	1W16	10	93.3	1W16	10	70	1W16	10	\$1679
230	115	1W16	10	76.7	1W16	10	57.5	1W16	10	1679
190	95	1W16	10	63.3	1W16	10	47.5	1W16	12.7	1679
155	77.5	1W16	12.7	51.7	1W16	12.7	38.8	1W16	15	1679
125	62.5	1W16	15	41.7	1W16	15	31.3	1W16	18	1813
100	50	1W16	18	33.3	1W16	18	25	1W16	20	1813
84	42	1W21	25	28	1W21	25	21	1W21	25	1949
68	34	1W21	30	22.7	1W21	30	17	1W21	30	1949
56	28	1W21	40	18.7	1W21	40	14	1W21	40	2313
45	22.5	1W21	40	15	1W21	40	11.3	1W21	40	2313
37	18.5	1C16	50	12.3	1C16	50	9.25	1C16	60	2313
30	15	1C16	60	10	1C16	60	7.5	1C16	86	2313
25	12.5	1C16	70	8.33	1C16	70	6.25	1C16	86	2313
20	10	1C16	86	6.67	1C16	86	5	1C21	101	2313
16.5	8.25	1C21	121	5.5	1C21	121	4.13	1C21	121	2713
13.5	6.75	1C21	144	4.5	1C21	144	3.38	1C21	144	2713
11.0	5.5	1C21	162	3.67	1C21	162	2.75	1C21	192	2713
9.0	4.5	1C21	192	3.0	1C21	192	2.25	1C21	240	2713
7.5	3.75	1C28	240	2.5	1C28	240	.....	.....	.....	.....

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
280	56	1W16	10	\$1679	420	46.6	1W16	10	\$1679
230	46	1W16	12.7	1679	331	36.8	1W16	12.7	1679
190	38	1W16	15	1679	280	31.1	1W16	15	1679
155	31	1W16	18	1679	233	25.9	1W16	18	1679
125	25	1W16	20	1813	210	23.3	1W16	20	1679
100	20	1W16	25	1813	168	18.6	1W16	25	1679
84	16.8	1W21	30	1949	140	15.5	1W21	30	1813
68	13.6	1W21	40	1949	105	11.7	1W21	40	1813
56	11.2	1W21	50	1949	84	9.32	1C16	50	1949
45	9.0	1C16	60	1949	70	7.77	1C16	60	1949
37	7.4	1C16	86	2313	60	6.66	1C16	70	1949
30	6.0	1C16	101	2313	48.8	5.42	1C16	86	1949
25	5.0	1C21	121	2313	41.6	4.61	1C16	101	1949
20	4.0	1C21	144	2313	34.7	3.85	1C21	121	2313
16.5	3.3	1C21	162	2713	29.2	3.24	1C21	144	2313
13.5	2.7	1C21	192	2713	25.9	2.88	1C21	162	2313
11.0	2.2	1C21	240	2713	21.9	2.43	1C21	192	2313
9.0	.....	.....	.....	.....	17.2	1.94	1C28	240	2713
7.5	.....	.....	.....	.....	14.6	1.62	1C21	288	2713

## STANDARD UNIT SPECS

TEFC Motor  
40° C Amb.  
3 Phase, 60 Hz  
200, 230/460, or 575 Volt  
X-V Drive Features

## ADDITIONAL RATINGS

AVAILABLE:  
Parallel—page M1-16  
MAS 51—page M1-113

- See pages M1-203 and M1-204 for output torque and horsepower ratings.
- Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

## Modification List Additions

### Motor

SXTF—\$184  
XPFC—\$184  
(Class I Group D, and Class II Groups F and G)  
Easy Clean/BISSC—\$139  
50 Hz—\$56

### Belt Case

XT—Standard  
Chromalife Discs—\$188

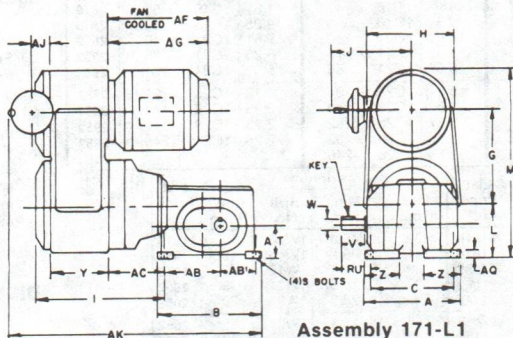
### Controls

ERC—\$459  
RAC—\$847  
Tachometer  
A-C Basic—\$498  
Digital Basic—\$577

Food & Chem Pak—\$327  
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Assembly 171-L1

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
1W16	5½	6⅞	4½	7¾	8½	12⅞	6⅞	4½	16⅞	¾	2	7/8	5¼	1¾
1C16	7¾	10	6½	7¾	8½	12⅞	6⅞	5	16⅞	¾	2½	1½	5¼	3⅞
1W21	8	8	7	7¾	8½	12⅞	6⅞	6	17⅞	¾	2½	1½	5¼	2⅞
1C21	9⅞	12¼	8	7¾	8½	12⅞	6⅞	6⅞	18⅞	½	3¼	1½	5¼	3½
1C28	11⅞	16⅞	9	7¾	8½	13⅞	6⅞	8⅞	20⅞	⅝	4⅞	2½	5¼	4
Size	AA	AB	AB¹	AC	AJ	AK	AQ	AT	RU	Key				
1W16	2	3	3	5⅞	7/8	20½	¾	2½	2⅞	¾ sq. x 1¼				
1C16	2	5½	3½	6⅞	7/8	23⅞	¾	3	2⅞	¼ sq. x 1¾				
1W21	2	3½	3½	6⅞	7/8	21⅞	¾	3¾	2½	¼ sq. x 1¾				
1C21	2	7	4	6⅞	7/8	25⅞	¾	4	4	¾ sq. x 2½				
1C28	2	9⅞	4⅞	6⅞	7/8	30	1	5⅞	6⅞	½ sq. x 3				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 1½ HP Right Angle MOTO DRIVE (1) (2)

Max. rpm	2 to 1				3 to 1				4 to 1				List Price
	Min. rpm	Size No.	Red. Ratio		Min. rpm	Size No.	Red. Ratio		Min. rpm	Size No.	Red. Ratio		
350	175	1W16	10		116	1W16	10		87.5	1W16	10		\$1918
280	140	1W16	10		93.3	1W16	10		70	1W16	10		1918
230	115	1W16	10		76.7	1W16	10		57.5	1W16	10		2052
190	95	1W16	10		63.3	1W16	10		47.5	1W16	10		2052
155	77.5	1W16	12.7		51.7	1W16	12.7		38.8	1W16	12.7		2052
125	62.5	1W21	15		41.7	1W21	15		31.3	1W21	15		2188
100	50	1W21	18		33.3	1W21	18		25	1W21	20		2188
84	42	1W21	25		28	1W21	25		21	1W21	25		2188
68	34	1C16	30		22.7	1C16	30		17	1C16	30		2188
56	28	1C16	36		18.7	1C16	36		14	1C16	36		2188
45	22.5	1C16	40		15	1C16	40		11.3	1C16	50		2619
37	18.5	1C16	50		12.3	1C16	50		9.25	1C16	60		2619
30	15	1C21	60		10	1C21	60		7.5	1C21	70		2619
25	12.5	1C21	70		8.33	1C21	70		6.25	1C21	86		2952
20	10	1C21	86		6.67	1C21	86		5	1C21	101		2952
16.5	8.25	1C28	121		5.5	1C28	121		4.13	1C28	144		2952
13.5	6.75	1C28	144		4.5	1C28	144		3.38	1C28	162		2952
11.0	5.5	1C28	162		3.67	1C28	162		2.75	1C28	192		2952
9.0	4.5	1C28	192		3.0	1C28	192		2.25	1C28	240		2952
7.5	3.75	1C28	240		2.5	1C28	240						....

Max. rpm	5 to 1				List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio			Max. rpm	Min. rpm	Size No.	Red. Ratio	
350	70	1W16	10		\$1918	420	46.6	1W16	10	\$1918
280	56	1W16	10		1918	331	36.8	1W16	12.7	1918
230	46	1W16	12.7		2052	280	31.1	1W16	15	1918
190	38	1W16	12.7		2052	233	25.9	1W21	18	2052
155	31	1W21	18		2188	210	23.3	1W21	20	2052
125	25	1W21	20		2188	168	18.6	1W21	25	2052
100	20	1W21	25		2188	140	15.5	1C16	30	2188
84	16.8	1C16	30		2188	117	12.9	1C16	36	2188
68	13.6	1C16	36		2188	105	11.7	1C16	40	2188
56	11.2	1C16	50		2188	84	9.32	1C16	50	2188
45	9.0	1C16	60		2619	70	7.77	1C16	60	2188
37	7.4	1C16	70		2619	60	6.66	1C16	70	2188
30	6.0	1C21	86		2619	48.8	5.42	1C16	86	2619
25	5.0	1C21	101		2952	41.6	4.61	1C21	101	2619
20	4.0	1C21	144		2952	34.7	3.85	1C21	121	2619
16.5	3.3	1C28	144		2952	29.2	3.24	1C21	144	2619
13.5	2.7	1C28	192		2952	25.9	2.88	1C28	162	2952
11.0	2.2	1C28	240		2952	21.9	2.43	1C28	192	2952
9.0	...	...	...		....	17.5	1.94	1C28	240	2952
7.5	...	...	...		....					....

## STANDARD UNIT SPECS

TEFC Motor

40° C Amb.

3 Phase, 60 Hz

200, 230/460, or 575 Volt

X-V Drive Features

## ADDITIONAL RATINGS

AVAILABLE:

Parallel—page M1-18

MAS 51—page M1-114

- (1) See pages M1-203 and M1-204 for output torque and horsepower ratings.
- (2) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

## Modification List Additions

### Motor

SXTF—\$197

XPFC—\$192

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$167  
50 Hz—\$70

### Belt Case

XT—Standard

Chromalife Discs—\$188

### Controls

ERC—\$459

RAC—\$847

Tachometer

A-C Basic—\$498

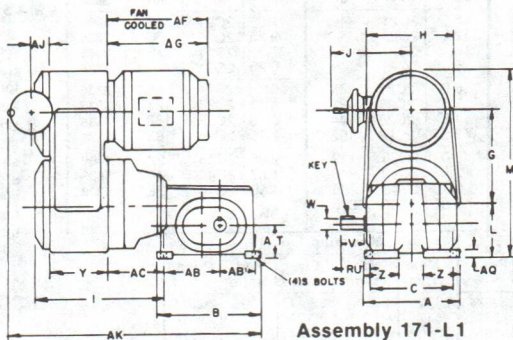
Digital Basic—\$577

Food & Chem Pak—\$354

(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
1W16	5½	6⅞	4½	7¾	8½	12 <sup>9</sup> / <sub>16</sub>	6⅞	4½	16 <sup>3</sup> / <sub>16</sub>	¾	2	7⅞	5¼	1¾
1C16	7¾	10	6½	7¾	8½	12 <sup>11</sup> / <sub>16</sub>	6⅞	5	16 <sup>11</sup> / <sub>16</sub>	¾	2½	1⅞	5¼	3⅞
1W21	8	8	7	7¾	8½	12 <sup>13</sup> / <sub>16</sub>	6⅞	6	17 <sup>11</sup> / <sub>16</sub>	¾	2½	1⅞	5¼	2⅞
1C21	9¼	12¼	8	7¾	8½	12 <sup>13</sup> / <sub>16</sub>	6⅞	6⅞	18 <sup>9</sup> / <sub>16</sub>	½	3¼	1½	5¼	3½
1C28	11⅞	16⅞	9	7¾	8½	13 <sup>7</sup> / <sub>16</sub>	6⅞	8⅞	20 <sup>9</sup> / <sub>16</sub>	⅝	4 <sup>9</sup> / <sub>16</sub>	2⅞	5¼	4
Size	AA	AB	AB'	AC	AJ	AK	AQ	AT	RU	Key				
1W16	2	3	3	5 <sup>15</sup> / <sub>16</sub>	7⅞	20½	⅝	2½	2 <sup>9</sup> / <sub>16</sub>	¾ sq. × 1¼				
1C16	2	5½	3½	6⅞	7⅞	23 <sup>11</sup> / <sub>16</sub>	⅝	3	2⅞	¼ sq. × 1¾				
1W21	2	3½	3½	6⅞	7⅞	21 <sup>13</sup> / <sub>16</sub>	⅝	3⅞	2½	¼ sq. × 1¾				
1C21	2	7	4	6⅞	7⅞	25 <sup>15</sup> / <sub>16</sub>	¾	4	4	¾ sq. × 2½				
1C28	2	9⅞	4 <sup>15</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	7⅞	30	1	5⅞	6⅞	½ sq. × 3				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 2 HP Right Angle MOTO DRIVE (1) (2)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
350	175	2W21	10	116	2W21	10	87.5	2W21	10	\$2435
280	140	2W21	10	93.3	2W21	10	70	2W21	10	2435
230	115	2W21	10	76.7	2W21	10	57.5	2W21	10	2435
190	95	2W21	10	63.3	2W21	10	47.5	2W21	12.7	2435
155	77.5	2W21	12.7	51.7	2W21	12.7	38.8	2W21	15	2802
125	62.5	2W21	15	41.7	2W21	15	31.3	2W21	18	2802
100	50	2W21	18	33.3	2W21	18	25	2C21	20	3000
84	42	2C21	25	28	2C21	25	21	2C21	25	3000
68	34	2C21	30	22.7	2C21	30	17	2C21	30	3000
56	28	2C21	36	18.7	2C21	36	14	2C21	40	3000
45	22.5	2C21	40	15	2C21	40	11.3	2C21	50	3000
37	18.5	2C21	50	12.3	2C21	50	9.25	2C21	60	3336
30	15	2C21	60	10	2C21	60	7.5	2C21	70	3336
25	12.5	2C21	70	8.33	2C21	70	6.25	2C21	86	3336
20	10	2C21	86	6.67	2C21	86	5	2C21	86	3336
16.5	8.25	2C28	121	5.5	2C28	121	4.13	2C28	121	3336
13.5	6.75	2C28	144	4.5	2C28	144	3.38	2C28	162	3336
11.0	5.5	2C28	162	3.67	2C28	162	2.75	2C28	192	3336
9.0	4.5	2C28	192	3.0	2C28	192	2.25	2C28	192	3336
7.5	3.75	2C40	240	2.5	2C40	240	1.87	2C40	240	5838
6.0	3.0	2C40	288	2	2C40	288	1.50	2C40	288	5838
5.0	2.5	2C40	288	1.67	2C40	288				....
4.0	2.0	2C40	288							....

## STANDARD UNIT SPECS

**TEFC Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**X-V Drive Features**

## ADDITIONAL RATINGS

**AVAILABLE:**

**Parallel—page M1-20**

**MAS 51—page M1-115**

- (1) See pages M1-203 and M1-204 for output torque and horsepower ratings.
- (2) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
350	70	2W21	10	\$2574	420	42	2W21	10	\$2574
280	56	2W21	10	2574	331	33.1	2W21	12.7	2574
230	46	2W21	12.7	2574	280	28	2W21	15	2574
190	38	2W21	15	2574	233	23.3	2W21	18	2574
155	31	2W21	18	2941	210	21	2W21	20	2574
125	25	2W21	25	2941	168	16.8	2W28	25	2941
100	20	2C21	30	3139	140	14	2C21	30	2941
84	16.8	2C21	40	3139	117	11.7	2C21	36	3139
68	13.6	2C21	40	3139	105	10.5	2C21	40	3139
56	11.2	2C21	50	3139	84	8.4	2C21	50	3139
45	9.0	2C21	60	3139	70	7	2C21	60	3139
37	7.4	2C21	70	3475	60	6	2C21	70	3139
30	6.0	2C21	86	3475	48.8	4.88	2C21	86	3139
25	5.0	2C21	101	3475	41.6	4.16	2C21	101	3475
20	4.0	2C28	144	3475	34.7	3.47	2C28	121	3475
16.5	3.3	2C28	162	3475	29.2	2.92	2C28	144	3475
13.5	2.7	2C28	192	3475	25.9	2.59	2C28	162	3475
11.0	2.2	2C28	192	3475	21.9	2.19	2C28	192	3475
9.0	1.8	2C28	240	5980	17.5	1.75	2C28	240	3475
7.5	1.5	2C40	288	5980					....
6.0	....	....	....	....					....
5.0	....	....	....	....					....
4.0	....	....	....	....					....

## DISCOUNT—D-49a

## Modification List Additions

### Motor

SXTF—\$264  
 XPFC—\$409  
 (Class I Group D, and Class II Groups F and G)  
 Easy Clean/BISSC—\$289  
 50 Hz—\$78

### Belt Case

XT—Standard  
 Chromalife Discs—\$188

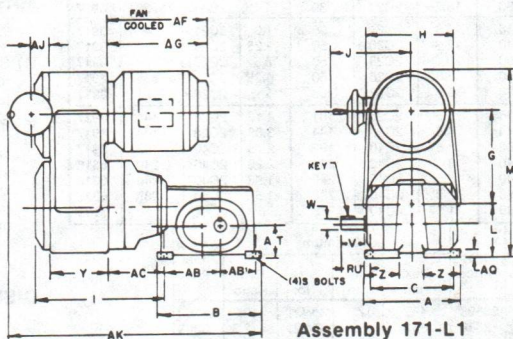
### Controls

ERC—\$459  
 RAC—\$847  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

Food & Chem Pak—\$477  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
2W21	8	8	7	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	6	20 <sup>7</sup> / <sub>16</sub>	3 <sup>8</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	2 <sup>5</sup> / <sub>8</sub>
2C21	9 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	8	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>
2W28	9 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	8	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	21 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>	3
2C28	11 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	9	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	8 <sup>5</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>16</sub>	5 <sup>8</sup> / <sub>16</sub>	4 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	4
2C40	15	20 <sup>7</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	19 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	25 <sup>15</sup> / <sub>16</sub>	1	5 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	4
Size	AA	AB	AB'	AC	AJ	AK	AQ	AT	RU	Key				
2W21	3 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	7 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	26 <sup>1</sup> / <sub>8</sub>	5 <sup>8</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	1/4 sq. x 1 3/4				
2C21	3 <sup>1</sup> / <sub>8</sub>	4	4	7 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	30 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>4</sub>	4	4	3/8 sq. x 2 1/2				
2W28	3 <sup>1</sup> / <sub>8</sub>	4	4	8 <sup>7</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	28 <sup>1</sup> / <sub>4</sub>	7 <sup>8</sup> / <sub>8</sub>	4	3 <sup>7</sup> / <sub>8</sub>	3/8 sq. x 2 1/2				
2C28	3 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	34 <sup>1</sup> / <sub>8</sub>	1	5 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	1/2 sq. x 3				
2C40	3 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	11 <sup>15</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	41 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	5/8 sq. x 4				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 3 HP Right Angle MOTO DRIVE (1) (2)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
350	175	2W21	10	116	2W21	10	87.5	2W21	10	\$3016
280	140	2W21	10	93.3	2W21	10	70	2W21	10	3116
230	115	2W21	10	76.7	2W21	10	57.5	2W21	10	3116
190	95	2W21	10	63.3	2W21	10	47.5	2W21	12.7	3116
155	77.5	2W21	10	51.7	2W21	10	38.8	2C21	20	3481
125	62.5	2C21	20	41.7	2C21	20	31.3	2C21	20	3481
100	50	2C21	20	33.3	2C21	20	25	2C21	30	3481
84	42	2C21	30	28	2C21	30	21	2C21	30	3481
68	34	2C21	30	22.7	2C21	30	17	2C21	30	3481
56	28	2C21	30	18.7	2C21	30	14	2C21	36	3917
45	22.5	2C21	36	15	2C21	36	11.3	2C21	40	3917
37	18.5	2C28	40	12.3	2C28	50	9.25	2C21	60	3917
30	15	2C28	50	10	2C28	50	7.5	2C28	70	3917
25	12.5	2C28	60	8.33	2C28	60	6.25	2C28	86	3917
20	10	2C28	86	6.67	2C28	86	5	2C28	121	3917
16.5	8.25	2C28	86	5.5	2C28	101	4.13	2C28	144	3917
13.5	6.75	2C28	144	4.5	2C28	144	3.38	2C28	144	3917
11	5.5	2C40	162	3.67	2C40	162	2.75	2C40	162	3917
9	4.5	2C40	240	3	2C40	240	2.25	2C40	240	6316
7.5	3.75	2C40	240	2.5	2C40	240	1.88	2C40	240	6316
6.0	3.0	2C40	288	2.0	2C40	288	1.5	2C40	288	6316
5.0	2.5	2C40	288	1.67	2C40	288	.....	.....	.....	.....

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
350	70	2W21	10	\$3303	420	42	2W21	10	\$3303
180	56	2W21	10	3656	331	33.1	2W21	12.7	3303
230	46	2W21	12.7	3656	280	28	2W28	15	3656
190	38	2C21	20	3656	233	23.3	2W28	18	3656
155	31	2C21	20	3770	210	21	2W28	20	3656
125	25	2C21	20	3770	168	16.8	2W28	25	3656
100	20	2C21	30	3770	140	14	2C21	30	3770
84	16.8	2C21	36	3770	117	11.7	2C21	36	3770
68	13.6	2C21	40	3770	105	10.5	2C21	40	3770
56	1.12	2C21	50	4203	84	8.4	2C21	50	3770
45	9.0	2C21	60	4203	70	7	2C21	60	3770
37	7.4	2C21	60	4203	60	6	2C28	70	4203
30	6.0	2C28	86	4203	48.8	4.88	2C28	86	4203
25	5.0	2C28	121	4203	41.6	4.16	2C28	101	4203
20	4.0	2C28	144	4203	34.7	3.47	2C28	121	4203
16.5	3.3	2C28	144	4203	29.2	2.92	2C28	144	4203
13.5	2.7	2C40	240	4203	.....	.....	.....	.....	.....
11	2.2	2C40	192	6972	.....	.....	.....	.....	.....
9	1.8	2C40	240	6972	.....	.....	.....	.....	.....
7.5	1.5	2C40	288	7097	.....	.....	.....	.....	.....
6.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
5.0	.....	.....	.....	.....	.....	.....	.....	.....	.....

## STANDARD UNIT SPECS

**Drip-Proof Motor**  
**40° C Amb.**  
**3 Phase, 60 Hz**  
**200, 230/460, or 575 Volt**  
**X-V Drive Features**

## ADDITIONAL RATINGS AVAILABLE:

**Parallel—page M1-22**  
**MAS 51—page M1-116**

- (1) See pages M1-203 and M1-204 for output torque and horsepower ratings.
- (2) Shaded selections under Maximum Speed Range column show output speeds carried in stock. Shaded areas under speed ranges other than maximum are available from stock by modifying at the prices shown.

## DISCOUNT—D-49a

## Modification List Additions

### Motor

TEFC—\$297  
 XTFC—\$328  
 XPFC—\$534  
 (Class I Group D, and Class II Groups F and G)  
 Easy Clean/BISSC—\$373  
 50 Hz—\$89

### Belt Case

XT—Standard  
 Chromalife Discs—\$188

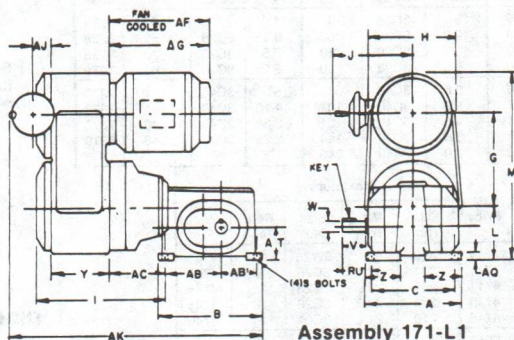
### Controls

ERC—\$459  
 RAC—\$847  
 Tachometer  
 A-C Basic—\$498  
 Digital Basic—\$577

**Food & Chem Pak—\$710**  
 (Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
2W21	8	8	7	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	6	20 <sup>7</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	2 <sup>5</sup> / <sub>8</sub>
2C21	9 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	8	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>
2W28	9 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	8	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	21 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>	3
2C28	11 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	9	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	8 <sup>5</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>	4 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	4
2C40	15	20 <sup>7</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	19 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	25 <sup>1</sup> / <sub>16</sub>	1	5 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	4
Size	AA	AB	AB'	AC	AJ	AK	AQ	AT	RU	Key				
2W21	3 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	7 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	26 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	1/4 sq. x 13/4				
2C21	3 <sup>1</sup> / <sub>8</sub>	7	4	7 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	30 <sup>1</sup> / <sub>4</sub>	3/4	4	4	9/8 sq. x 2 <sup>1</sup> / <sub>2</sub>				
2W28	3 <sup>1</sup> / <sub>8</sub>	4	4	8 <sup>7</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	28 <sup>1</sup> / <sub>4</sub>	7/8	4	3 <sup>7</sup> / <sub>8</sub>	9/8 sq. x 2 <sup>1</sup> / <sub>2</sub>				
2C28	3 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	34 <sup>1</sup> / <sub>8</sub>	1	5 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	1/2 sq. x 3				
2C40	3 <sup>1</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	11 <sup>5</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	41 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	5/8 sq. x 4				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 5 HP Right Angle MOTO DRIVE <sup>(1)</sup>

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
350	175	3W28	7.5	116	3W28	7.5	87.5	3W28	7.5	\$4409
280	140	3W28	7.5	93.3	3W28	7.5	70	3W28	7.5	4409
230	115	3W28	7.5	76.7	3W28	7.5	57.5	3W28	10	4409
190	95	3C21	20	63.3	3C21	20	47.5	3C21	20	4441
155	77.5	3C21	25	57.7	3C21	25	38.8	3C21	25	4441
125	62.5	3C21	30	41.7	3C21	30	31.3	3C21	30	5238
100	50	3C21	30	33.3	3C21	30	25	3C21	30	5238
84	42	3C21	30	28	3C21	30	21	3C21	30	5238
68	34	3C28	30	22.7	3C28	30	17	3C28	36	5238
56	28	3C28	30	18.7	3C28	36	14	3C28	40	5238
45	22.5	3C28	36	15	3C28	40	11.3	3C28	50	5238
37	18.5	3C28	40	12.3	3C28	50	9.25	3C28	60	5238
30	15	3C28	50	10	3C28	60	7.5	3C28	70	5238
25	12.5	3C28	60	8.53	3C28	60	6.25	3C28	60	7379
20	10	3C40	86	6.67	3C40	86	5	3C40	101	7379
16.5	8.25	3C40	101	5.5	3C40	101	4.13	3C40	121	7379
13.5	6.75	3C40	101	4.5	3C40	101	3.38	3C40	240	7379
11	5.5	3C40	144	3.67	3C40	144	2.25	3C40	240	7379
9	4.5	3C40	240	3.0	3C40	240	.....	.....	.....	.....

## STANDARD UNIT SPECS

Drip-Proof Motor  
40° C Amb.  
3 Phase, 60 Hz  
200, 230/460, or 575 Volt  
Ventilated Belt Case

## ADDITIONAL RATINGS AVAILABLE:

Parallel—page M1-24  
MAS 51—page M1-117

(1) See pages M1-203 and M1-204  
for output torque and horse-  
power ratings.

Max. rpm	5 to 1			List Price	Maximum				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
350	70	3W28	7.5	\$4711	420	42	3W28	10	\$4746
280	56	3W28	10	4711	331	33.1	3C28	12.7	4746
230	46	3W28	10	4711	280	28	3C28	15	4746
190	38	3C21	20	4746	233	23.3	3C28	18	4746
155	31	3C21	25	4746	210	21	3C21	20	4746
125	25	3C21	30	5543	168	16.8	3C21	25	4746
100	20	3C21	30	5543	140	14	3C21	30	5543
84	16.8	3C21	36	5543	117	11.7	3C21	36	5543
68	13.6	3C28	40	5543	105	10.5	3C28	40	5543
56	11.2	3C28	50	5543	84	8.4	3C28	50	5543
45	9.0	3C28	60	5543	70	7	3C28	60	5543
37	7.4	3C28	70	5543	60	6	3C28	70	5543
30	6.0	3C28	70	5543	48.8	4.88	3C28	86	5543
25	5.0	3C40	86	7681	.....	.....	.....	.....	.....
20	4.0	3C40	121	7681	.....	.....	.....	.....	.....
16.5	3.3	3C40	144	7681	.....	.....	.....	.....	.....
13.5	2.7	3C40	240	7681	.....	.....	.....	.....	.....
9.0	.....	.....	.....	7681	.....	.....	.....	.....	.....

## DISCOUNT—D-49a

## Modification List Additions

### Motor

TEFC—\$317  
XTFC—\$345  
XPFC—\$558  
(Class I Group D, and Class II  
Groups F and G)  
Easy Clean/BISSC—\$409  
50 Hz—\$106

### Belt Case

XT—\$176  
Chromalife Discs—\$194

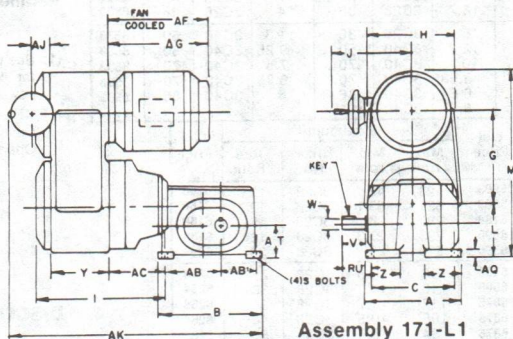
### Controls

ERC—\$459  
RAC—\$927  
Tachometer  
A-C Basic—\$498  
Digital Basic—\$577

Food & Chem Pak—\$778  
(Refer to page M1-84 for more  
information)

Refer to Page M1-1 for additional  
information on modifications  
available.

## Vertical Right Angle Reducer



Assembly 171-L1

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
3C21	9 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	8	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>
3W28	9 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	8	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	18	10 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>2</sub>	25 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>	3
3C28	11 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	9	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>2</sub>	10 <sup>7</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4
3C40	15	20 <sup>7</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	29 <sup>3</sup> / <sub>8</sub>	1	5 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4
Size	AA	AB	AB'	AC	AJ	AK	AQ	AT	RU	Key				
3C21	4 <sup>3</sup> / <sub>16</sub>	7	4	9 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>4</sub>	34 <sup>13</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	4	4	3/8 sq. x 2 <sup>1</sup> / <sub>2</sub>				
3W28	4 <sup>3</sup> / <sub>16</sub>	4	4	8 <sup>7</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>4</sub>	32 <sup>7</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	4	3 <sup>7</sup> / <sub>8</sub>	3/8 sq. x 2 <sup>1</sup> / <sub>2</sub>				
3C28	4 <sup>3</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	9 <sup>15</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>4</sub>	38 <sup>5</sup> / <sub>8</sub>	1	5 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	1/2 sq. x 3				
3C40	4 <sup>3</sup> / <sub>16</sub>	11 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	12 <sup>11</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	5/8 sq. x 4				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 7<sup>1</sup>/<sub>2</sub> HP Right Angle MOTO DRIVE <sup>(1)</sup>

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
350	175	3W28	5	116	3W28	5	87.5	3C28	10	\$5560
280	140	3W28	7.5	93.3	3W28	7.5	70	3W28	7.5	5560
230	115	3C28	12.7	76.7	3C28	12.7	57.5	3C28	12.7	5900
190	95	3C28	20	63.3	3C28	20	47.5	3C28	20	6254
155	77.5	3C28	20	51.7	3C28	20	38.8	3C28	20	6254
125	62.5	3C28	20	41.7	3C28	20	31.3	3C28	20	6254
100	50	3C28	20	33.3	3C28	20	25	3C28	20	6254
84	42	3C28	25	28	3C28	25	21	3C28	25	6533
68	34	3C28	30	22.7	3C28	30	17	3C28	30	6533
56	28	3C28	36	18.7	3C28	36	14	3C28	36	6533
45	22.5	3C28	36	15	3C28	36	11.3	3C40	50	8533
37	18.5	3C40	50	12.3	3C40	50	9.25	3C40	50	8533
30	15	3C40	70	10	3C40	70	7.5	3C40	70	8533
25	12.5	3C40	70	8.53	3C40	70	6.25	3C40	70	8533
20	10	3C40	86	6.67	3C40	86	5	3C40	86	8533
16.5	8.25	3C40	101	5.5	3C40	101	....	....	....	....

Max. rpm	5 to 1			List Price	Maximum <sup>(2)</sup>				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
350	70	3C28	10	\$5903	420	42	3C28	10	\$6188
280	56	3W28	7.5	5903	331	33.1	3C28	12.7	6188
230	46	3C28	12.7	6188	280	28	3C28	15	6188
190	38	3C28	20	6596	233	23.3	3C28	18	6188
155	31	3C28	20	6596	210	21	3C28	20	6254
125	25	3C28	20	6596	168	16.8	3C28	25	6254
100	20	3C28	25	6596	140	14	3C28	30	6254
84	16.8	3C28	30	6875	117	11.7	3C28	36	6254
68	13.6	3C28	36	6875	105	10.5	3C28	40	6254
56	11.2	3C28	40	6875	84	8.4	3C28	50	6533
45	9	3C40	50	8876	70	7.0	3C28	60	6533
37	7.4	3C40	70	8876	.....	.....	.....	.....	.....
30	6	3C40	70	8876	.....	.....	.....	.....	.....
25	5	3C40	86	8876	.....	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.....	.....	.....
16.5	.....	.....	.....	.....	.....	.....	.....	.....	.....

## STANDARD UNIT SPECS

Drip-Proof Motor  
40° C Amb.  
3 Phase, 60 Hz  
200, 230/460, or 575 Volt  
Ventilated Belt Case

## ADDITIONAL RATINGS

AVAILABLE:  
Parallel—page M1-26

- (1) See pages M1-203 and M1-204 for output torque and horsepower ratings.
- (2) XT available with Screened Belt Case Opening.

## DISCOUNT—D-49a

## Modification List Additions

### Motor

TEFC—\$602  
XTFC—\$648  
XPFC—\$901  
(Class I Group D, and Class II Groups F and G)  
Easy Clean/BISSC—\$717  
50 Hz—\$164

### Belt Case

XT—\$193  
XT w/Screened Belt Case Opening—\$193 (2)  
Chromalife Discs—\$194

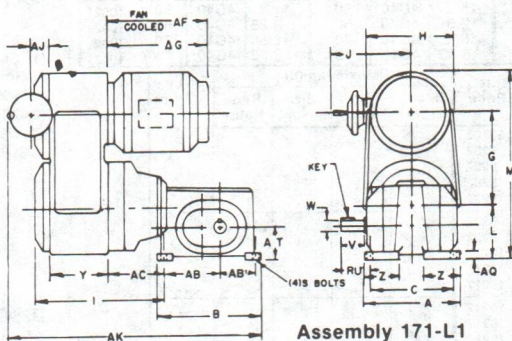
### Controls

ERC—\$459  
RAC—\$927  
Tachometer  
A-C Basic—\$498  
Digital Basic—\$577

Food & Chem Pak—\$1104  
(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Assembly 171-L1

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
3W28	9 1/2	9 3/4	8	12 3/8	11 7/8	18	10 7/8	7 1/2	25 3/8	1/2	3 1/4	1 1/2	7 3/4	3
3C28	11 1/8	16 1/8	9	12 3/8	11 7/8	19 1/2	10 7/8	8 5/8	26 1/2	5/8	4 9/16	2 1/8	7 3/4	4
3C40	15	20 7/8	12 1/2	12 3/8	11 7/8	22 1/4	10 7/8	11 1/2	29 3/8	1	5 1/2	2 5/8	7 3/4	4
Size	AA	AB	AB <sup>1</sup>	AC	AJ	AK	AQ	AT	RU	Key				
3W28	4 3/16	4	4	8 7/16	1 3/4	32 7/16	7/8	4	3 7/8	3/8 sq. x 2 1/2				
3C28	4 3/16	9 1/16	4 15/16	9 15/16	1 3/4	38 5/8	1	5 1/8	6 1/16	1/2 sq. x 3				
3C40	4 3/16	11 7/8	6 5/8	12 1 1/16	1 3/4	46 1/4	1 1/4	6 1/2	7 1/16	5/8 sq. x 4				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



# 10 HP Right Angle MOTO DRIVE (1)

Max. rpm	2 to 1			3 to 1			4 to 1			List Price
	Min. rpm	Size No.	Red. Ratio	Min rpm	Size No.	Red. Ratio	Min. rpm	Size No.	Red. Ratio	
350	175	4W40	5	116	4W40	5	87.5	4W40	7.5	\$7952
280	140	4W40	7.5	93.3	4W40	7.5	70	4W40	7.5	7952
230	115	4W40	7.5	76.7	4W40	7.5	57.5	4W40	13	7952
190	95	4W40	13	63.3	4W40	13	47.5	4W40	13	7952
155	77.5	4W40	13	51.7	4W40	13	38.8	4W40	13	7952
125	62.5	4W40	15	41.7	4W40	15	31.3	4W40	18	7952
100	50	4W40	18	33.3	4C40	20	25	4C40	20	7952
84	42	4C40	20	28	4C40	20	21	4C40	25	10021
68	34	4C40	25	22.7	4C40	25	17	4C40	30	10021
56	28	4C40	30	18.7	4C40	30	14	4C40	36	10021
45	22.5	4C40	50	15	4C40	50	11.3	4C40	50	10021
37	18.5	4C40	50	12.3	4C40	50	9.25	4C40	60	10021
30	15	4C40	70	10	4C40	70	7.5	4C40	70	10021
25	12.5	4C40	70	8.33	4C40	70	6.25	4C40	86	10021

Max. rpm	5 to 1 (2)			List Price	Maximum (2)				List Price
	Min. rpm	Size No.	Red. Ratio		Max. rpm	Min. rpm	Size No.	Red. Ratio	
350	70	4W40	7.5	\$8202	.....	.....	.....	.....	.....
280	56	4W40	10	8202	.....	.....	.....	.....	.....
230	46	4W40	12.7	8202	.....	.....	.....	.....	.....
190	38	4W40	15	8202	.....	.....	.....	.....	.....
155	31	4C40	20	8202	.....	.....	.....	.....	.....
125	25	4C40	20	8202	.....	.....	.....	.....	.....
100	20	4C40	25	8202	.....	.....	.....	.....	.....
84	16.8	4C40	30	10217	.....	.....	.....	.....	.....
68	13.6	4C40	40	10217	.....	.....	.....	.....	.....
56	11.2	4C40	50	10217	.....	.....	.....	.....	.....
45	9	4C40	60	10217	.....	.....	.....	.....	.....
37	7.4	4C40	70	10217	.....	.....	.....	.....	.....
30	6	4C40	86	10217	.....	.....	.....	.....	.....
25	5	4C40	101	10217	.....	.....	.....	.....	.....

## STANDARD UNIT SPECS

Drip-Proof Motor

40° C Amb.

3 Phase, 60 Hz

200, 230/460, or 575 Volt

Ventilated Belt Case

## ADDITIONAL RATINGS

AVAILABLE:

Parallel—page M1-28

MAS 51—page R1-88

(1) See pages M1-203 and M1-204 for output torque and horsepower ratings.

(2) XT available with Screened Belt Case Opening

## DISCOUNT—D-49a

## Modification List Additions

### Motor

TEFC—\$627

XTFC—\$673

XPFC—\$930

(Class I Group D, and Class II Groups F and G)

Easy Clean/BISSC—\$757

50 Hz—\$210

### Belt Case

XT—\$213

w/Screened Belt Case Openings—\$213 (2)

Chromalife Discs—\$230

### Controls

ERC—\$953

Tachometer

A-C Basic—\$498

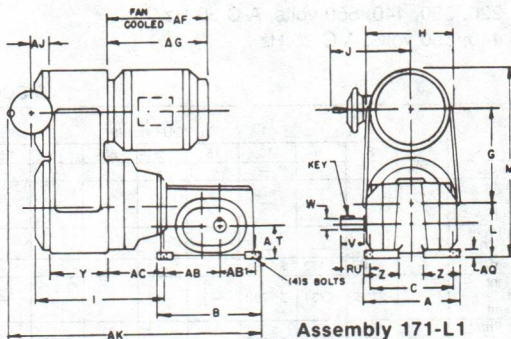
Digital Basic—\$577

Food & Chem Pak—\$1200

(Refer to page M1-84 for more information)

Refer to Page M1-1 for additional information on modifications available.

## Vertical Right Angle Reducer



Assembly 171-L1

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	Z
4W40	12 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>4</sub>	11	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	26 <sup>3</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>
4C40	15	20 <sup>7</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	26 <sup>3</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	33 <sup>7</sup> / <sub>16</sub>	1	5 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	4
Size	AA	AB	AB'	AC	AJ	AK	AQ	AT	RU	Key				
4W40	5	6	6	14 <sup>1</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	44 <sup>1</sup> / <sub>4</sub>	1	5 <sup>3</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	1/2 sq. x 3 <sup>3</sup> / <sub>4</sub>				
4C40	5	11 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>16</sub>	27 <sup>1</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	5/8 sq. x 4				

For AF and AG motor dimensions, refer to page M1-196.

For dimensions on Z-Flow, Horizontal and other configurations, or alternate Control configurations, refer to Dimensions Section beginning on page M1-138.



## BRAKES <sup>(1)</sup>

Brakes are open drip-proof, shaft-through style and have coils that are rated for continuous duty. The REEVES Tachometers may be mounted on the brake cover—specify on order. The magnetic brakes mount directly to the variable speed shaft. On stopping, the load inertia is overcome by the brake directly through the variable shaft. The MOTO DRIVE belt absorbs the motor inertia only.

The price additions cover the following specifications:

- 115, 200, 208, 220, 230, 220/240, 230/460, 440, 550 volts, A-C 60 Hz.
- 115, 208, 220, 380, 440, 550 volts, A-C 50 Hz.
- 115, 220, 440, 550 volts, A-C 25 Hz.

### DISCOUNT—D-49a

MOTO DRIVE SIZE	TYPE	TORQUE (lbs-ft)										
		1½	3	6	10	15	25	50	75	125	175	230
050 (2)	Standard	\$384	\$445	—	—	—	—	—	—	—	—	—
	Dust-Tight and Watertight	—	—	—	—	—	—	—	—	—	—	—
	Explosion-Proof Magnetic (7)	—	—	—	—	—	—	—	—	—	—	—
100 (3), (4), (5)	Standard	—	\$445	\$473	\$ 481	—	—	—	—	—	—	—
	Dust-Tight and Watertight	—	\$706	\$734	\$ 792	—	—	—	—	—	—	—
	Explosion-Proof Magnetic (7)	—	\$901	\$959	\$1,017	—	—	—	—	—	—	—
200	Standard	—	—	—	\$ 481	\$ 723	\$ 820	—	—	—	—	—
	Dust-Tight and Watertight	—	—	—	\$ 792	\$1,034	\$1,131	—	—	—	—	—
	Explosion-proof Magnetic (7)	—	—	—	\$1,017	—	\$1,340	—	—	—	—	—
300	Standard	—	—	—	\$ 481	\$ 723	\$ 820	\$1,148	—	—	—	—
	Dust-Tight and Watertight	—	—	—	\$ 792	\$1,034	\$1,131	\$1,515	—	—	—	—
	Explosion-Proof (7) Magnetic	—	—	—	\$1,017	—	\$1,437	\$1,846	—	—	—	—
400	Standard	—	—	—	—	—	\$ 820	\$1,148	\$1,607	\$2,104	—	—
	Dust-Tight and Watertight	—	—	—	—	—	\$1,131	\$1,515	\$2,066	\$2,677	—	—
	Explosion-Proof (7) Magnetic	—	—	—	—	—	\$1,437	\$1,846	\$2,466	—	—	—
500	Standard	—	—	—	—	—	—	\$1,148	\$1,607	\$2,104	—	—
	Dust-Tight and Watertight	—	—	—	—	—	—	\$1,515	\$2,066	\$2,677	—	—
	Explosion-Proof (7) Magnetic	—	—	—	—	—	—	\$1,846	\$2,466	—	—	—
600	Standard	—	—	—	—	—	—	—	\$1,607	\$2,018 <sup>a</sup>	\$2,950	\$3,283
	Dust-Tight and Watertight	—	—	—	—	—	—	—	\$2,066	\$2,677 <sup>a</sup>	\$3,611	\$4,020
	Explosion-Proof (7) Magnetic	—	—	—	—	—	—	—	—	—	—	—

- (1) These price additions are for pricing new equipment only.
- (2) Dust-tight, watertight brakes not available on size 050.
- (3) The RELIANCE DUTY MASTER brake is standard on size 100 drives unless otherwise specified.
- (4) Stearns brake not available for tachometer mounting on size 100 MOTO DRIVES.
- (5) Explosion-proof brake not available on size 100 Z-flow units.
- (6) Price for 125 lb. brake includes special adaptor required for 400 and 500 MOTO DRIVE.
- (7) The 3 through 75 lbs-ft. Stearns brake is approved for Class I, Group D only, or Class II, Groups E, F & G hazardous locations only. Tachometer not available. Size 100 Moto Drive units carry a multiple labeling of Class I, groups C & D and Class II, groups E, F and G.

## BD" MOTO DRIVE

REEVES "BD" MOTO DRIVE (Input shaft provided in place of motor). "BD" MOTO DRIVE units incorporate an input shaft and bearing assembly in place of a motor. Power may then be taken from another source by V-belt or direct coupled to the input shaft to provide the proper input speed. The input speed must be equal to that of the motorized drive in the rating table. Choosing a particular drive is the same as selecting a motorized drive from the rating table. This feature is not available in size 353 "C" flow assemblies and some inverted vertical assemblies. Make the following deduction from catalog list price.

### DISCOUNT—D-49a

Size	100	200	300
Deduction	\$58	\$58	\$132



## CHROMALIFE<sup>®</sup>(1)

Chromalife is a hard chromium plating applied to the disc faces of the MOTO DRIVE. It is recommended for use in applications that require long term storage, extra guard for corrosive ambient areas, and applications requiring operating at one set speed for long periods of time.

(1) These prices are for pricing new equipment only.

### DISCOUNT—D-49a

Sizes	List Price
050-300	\$188
400-600K	230



# Modifications

## AIRTROL<sup>(1)</sup>

REEVES AIRTROL is a pneumatic shifting actuator for remote manual control and automatic process control. When used in open or closed loop control systems, the AIRTROL unit automatically and continuously corrects operating speeds of the MOTO DRIVE unit to compensate for variations in materials or processes such as temperature, liquid level, pressure, weight, peripheral speed and proportional flow.

### CHECK THESE FEATURES:

AIRTROL unit operates on standard 3 to 15 psi air signal from any process instrument. Exclusive "Span Adjustment" makes it possible to use the full signal . . . locking the 3 psi signal exactly to minimum speed and 15 psi signal exactly to maximum speed of the MOTO DRIVE unit. This applies to units of 2:1 speed range, as well as 10:1 (maximum) speed range.

Exclusive contoured cam design results in output speed in linear (straight line) relationship with instrument air signal over entire speed range of the drive. This cam also permits the control to be very sensitive yet stable throughout the speed range of the drive.

REEVES AIRTROL units readily becomes an inexpensive remote manual control for hazardous and explosive environments by specifying the air supply solenoid shut-off valve to be explosion-proof and by using the AIRTROL units indicating manual control station.

An electric, solenoid air valve, which is normally supplied in the same voltage as the drive motor, shuts off the plant air supply to the AIRTROL unit when the MOTO DRIVE unit is stopped, preventing the Airtrol from operating.

The MOTO DRIVE AIRTROL unit price additions listed below include the AIRTROL unit itself; the electric, solenoid air shut-off valve; and the plant air supply line filter-regulator and gauge.

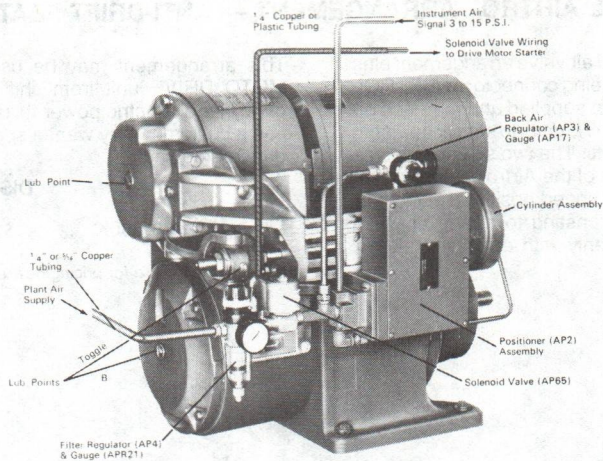
It is strongly recommended that AIRTROL MOTO DRIVE units equipped with magnetic brakes or driving high inertia loads be equipped with the "Anti-Drift" feature.

**DISCOUNT—D-49a**

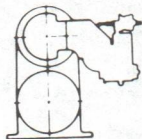
### List Prices:

Size 050 . . . . .	\$2057 (#100 Belt Case will be furnished)
Size 100 . . . . .	\$2057
Sizes 200, 300 . . . . .	\$2106
Sizes 400, 500 . . . . .	\$2567
Sizes 600 & 600K . . . . .	\$2628
Explosion-Proof Solenoid Valve —	
Class I, Groups C & D;	
Class II, Groups E, F & G . . . . .	\$ 36
Corrosion Resistant	
and Epoxy Painted . . . . .	\$ 72
Airtrol Indicating Manual	
Control Station . . . . .	\$295
Filter . . . . .	\$ 36
Airtrol Shifting Mechanisms with	
Snap-Type Limit Switches . . . . .	\$367
Manual/Automatic Remote Control . . . .	\$414

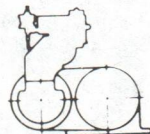
(1) These prices are for pricing new equipment only.



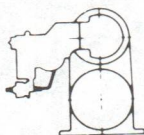
## AIRTROL MOUNTING POSITIONS



Right Hand  
Vertical Assemblies

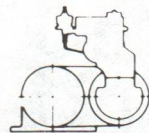


Right Hand  
Horizontal Assemblies



Left Hand  
Vertical Assemblies

**NOTE:**  
AIRTrol not  
available in  
Size 111,  
Assemblies 110A,  
128A or 132A



Left Hand  
Horizontal Assemblies



## Modifications

### SPECIAL AIRTROL ARRANGEMENT — ANTI-DRIFT FEATURE<sup>(1)</sup>

Uses double solenoid air valve arrangement plus a special restricted tubing connector in AIRTROL back air pressure line, supplied and mounted on AIRTROL MOTO DRIVE units to satisfy non-shift stopping requirements. The two solenoid valves trap air on both sides of the Airtrol piston so that the drive will hold its speed position setting and not shift while it is coasting to a stop or while being stopped suddenly with either a brake or high friction load.

This arrangement may be used to prevent MOTO DRIVE unit from shifting under emergency stop, electric power failure, or any condition a customer may want a speed position held during stopping.

#### DISCOUNT—D-49

Sizes 100 thru 600K. . . . . \$183 List Addition

(1) These prices are for pricing new equipment only.

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## ELECTRO PNEUMATIC TRANSDUCER

### DISCOUNT—D-49a

The REEVES-Conoflow, Model T-28, electro-pneumatic transducer converts a D-C milliamper signal to an Airtrol signal pressure. The electro-pneumatic transducer generates a 3 to 15 psi pneumatic output signal pressure range proportional to 0-20 milliamper, 4-20 milliamper, or 10-50 milliamper D-C input signal ranges. These ranges are available at the turn of the built-in selector switch.

The electro-pneumatic transducer permits using a REEVES AIR-TROL MOTO DRIVE as a final element in an electronic process control system.

REEVES-Conoflow Model T-28, electro-pneumatic transducer with 0-20, 4-20, or 10-50 ma. D-C input signals yield to 3 to 15 psi pneumatic output signal range. A two-hole mounting bracket for a panel or enclosure is furnished

.....\$1049.00 List

Filter Regulator to provide a 25 psi filtered and regulated supply pressure for electro-pneumatic transducer

.....\$147.00 List

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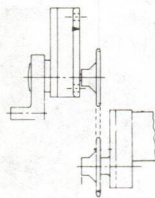


# Modifications

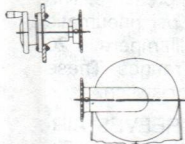
## CONTROLS <sup>(1)</sup>

DISCOUNT—D-49

### EXTENDED INDICATOR HANDWHEEL CONTROLS (050 THRU 600K)



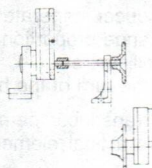
050



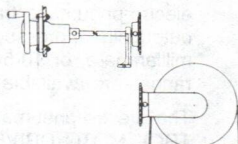
100—600K

#### CLOSE COUPLED CONTROL

Complete with 2 sprockets .....	\$92.00
Shifting chain, per foot ( $\frac{3}{16}$ " W. x 1" P.) .....	\$5.30



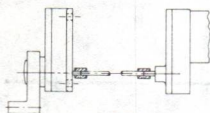
050



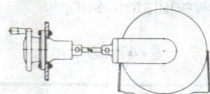
100—600K

#### ROD EXTENDED CONTROL

Complete with 2 sprockets, one 12" rod, one rod bearing support .....	\$92.00
Shifting chain, per foot ( $\frac{3}{16}$ " W. x 1" P.) .....	\$5.30



050

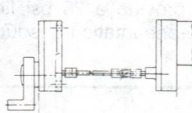


100—600K

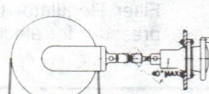
#### ROD TYPE — DIRECT COUPLING

Complete with 5 foot rod* .....	\$72.00
Additional rod, per foot .....	\$3.10

\* 3 is standard for size 050.



050

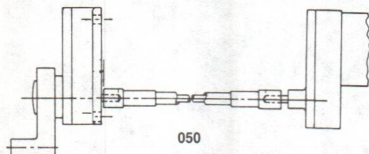


100—600K

#### ROD TYPE — UNIVERSAL COUPLING

Complete with 5 foot rod and universal joint* .....	\$111.00
Additional Rod, per foot .....	\$3.10
Universal Joint .....	\$81.00

\* 3 feet is standard for size 050.



050

#### FLEXIBLE SHAFT CONTROL

(Sizes 050, 100 and 200)  
(Right Angle Control Mounting, Only)

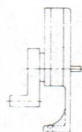
Complete, as shown, with standard 5 ft. length flexible cable .....	\$300.00
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For cable lengths of 3 ft. or 4 ft., add: .....

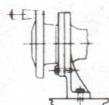
\$103.00

Maximum Cable length available — 5 ft.

Minimum allowable radius — 8 in. Cable cannot be cut.



050



100—600K

#### CONTROL MOUNTING BRACKET

Controls above are shown with flange for wall or panel mounting .....	\$35.00
---	---------

(1) These price additions are for pricing new equipment only.

## CONTROLS <sup>(1)</sup>

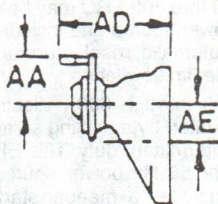
### FRONT HANDWHEEL CONTROL

DISCOUNT—D-49a

The Front Handwheel Control is available as an extra cost option to Standard Right Angle Control or all Extended Indicator Handwheel Controls. When specified on orders for new units, use the following price additions:

Size	AA	AD	AE
050	1 $\frac{5}{16}$	3 $\frac{1}{16}$	1 $\frac{3}{16}$
100	2	5 $\frac{3}{8}$	1 $\frac{9}{16}$
200	3 $\frac{1}{8}$	6 $\frac{3}{4}$	1 $\frac{7}{16}$
300	4 $\frac{3}{16}$	8 $\frac{1}{2}$	1 $\frac{15}{16}$
400	5	12 $\frac{5}{8}$	3 $\frac{1}{8}$
500	6	13 $\frac{9}{16}$	3 $\frac{3}{4}$
600 & 600K	7	14 $\frac{7}{8}$	3 $\frac{3}{4}$

Sizes	List Price
050, 100, 200 .....	<b>\$209</b>
300 .....	<b>\$209</b>
400 .....	<b>\$264</b>
500, 600, 600K .....	<b>\$264</b>

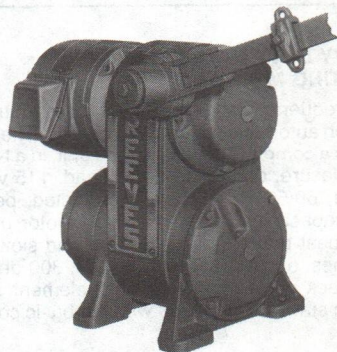


### MECHANICAL AUTOMATIC CONTROL

DISCOUNT—D-49a

REEVES Mechanical Automatic Control is available for applications where the available controlling force is sufficient to operate the speed changing mechanism. The extended lever of this control can be connected directly, or by cable to follower rolls, pneumatic or steam actuated regulators, etc. Movement of the extended lever provides the correct action for speed change. A breakover mechanism protects the control against shock.

Sizes	List Price
Size 100 .....	<b>\$295</b>
(includes breakover mechanism)	
Size 200 .....	<b>\$350</b>
(includes breakover mechanism)	



(1) These price additions are for pricing new equipment only.



# Modifications

## ELECTRIC REMOTE CONTROLS (1)

In general, the control gearmotor is totally enclosed, single-phase, 3-lead, 115 volt, capacitor start and run, and instantly reversible. The control includes one momentary contact type, 2-element pushbutton station, marked FAST and SLOW with surface mounting (NEMA 1) as standard. Flush mounting (NEMA 1-B) is available.

The sizes 050 thru 300 ERC may be used on 60 and 50 Hz power source and includes a built-in brake and automatic reset thermal protection and adjustable limit switches.

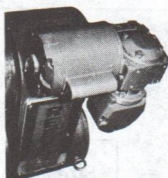
The sizes 400 through 600K Electric Remote Control is actuated by a shifting screw and may be used for intermittent duty. This ERC may be used on 60 or 50 Hz power sources (specify which) and includes a manual starting switch with heater overload protection, adjustable mechanical stops and safety clutch to prevent over-shift damage.



Size 050 thru 300  
Heavy Duty ERC



Pushbutton  
NEMA 1  
Surface Mount



Size 400 thru 600K  
Heavy Duty ERC

A single-phase, 115 volt power source for the above controls may be obtained from across motor leads T1 and T4 on the 3-phase, 60 Hz, 230/460 volt or 3-phase, 50 Hz, 190/380 volt star-wye connected, dual voltage main drive motor.

### DISCOUNT—D-49a

#### LIST ADDITIONS

Heavy Duty ERC Sizes 050 through 300 .....	\$459.00
Heavy Duty ERC Sizes 400 through 600K .....	953.00

#### 400—600K

The ERC units equipped with an overriding clutch mechanism can be supplied with a Rotary type limit switch for control purposes when desired. .... add \$ 773  
Explosion-Proof Limit Switch ... add \$1861

Transformers—230, 460 or 575 volt primary; 115 volt secondary, 60/50 Hz, Single-Phase for above:

138 va. for Sizes 050-300, add .	\$ 75.00
150 va. for Sizes 400 through 600K, add .....	106.00

Extra Pushbutton Station, each ... \$ 36.00

**NOTE:** For Automatic Process Control in Sizes 100-300, Refer to REEVES Automatic Controller, page M1-72 & M1-73.

## HEAVY DUTY BALL TYPE SHIFTING MECHANISM(1)

For frequent, fast shifting and continuous jog duty on automatic control applications. The actuator is a complete self-contained unit, in a NEMA 4 enclosure, consisting of a 3-lead, 115 volt, 1 phase, 60/50 Hz, thermally protected, permanent capacitor, instantly reversible motor, built-in anti-coast brake, adjustable fast and slow limit switches, and a 1000 ohm, 2 watt, 300 degree, feedback potentiometer. One 2-element pushbutton station is provided with the basic control.

(1) These prices are for pricing new equipment only.

**NOTE:** For explosion-proof applications, refer to Reliance Sales Office or Distributor.

### DISCOUNT—D-49a

Size 400 thru 600K as described \$1934

Transformer—230, 460 or 575 volt primary; 115 volt secondary, 60/50 Hz, single-phase for above:

150 va. for Size 400 thru 600K, add \$106

Extra pushbutton stations for any of the above, each.....\$36

## USHBUTTON STATIONS<sup>(1)</sup>

DISCOUNT—D-49a

for use on any version of single-phase 3-lead  
ERC models. Two-element station with pushbut-  
tons mounted in the following enclosures:

	LIST
NEMA 1 Standard Pushbutton. ....	\$ 36
NEMA 1 Flush Mounting. ....	\$ 70
NEMA 4 and 5 Water Tight. ....	\$133
NEMA 12 Oil Tight. ....	\$153
NEMA 7 and 9 Explosion-Proof Class I, Groups C and D, Class II, Groups E, F and G ....	\$167

## EXPLOSION-PROOF ELECTRIC REMOTE CONTROL<sup>(1)</sup>

DISCOUNT—D-49a

Class I, Group D, Class II, Groups F & G.

### EXPLOSION-PROOF ELECTRIC REMOTE CONTROL (FOR MOTO DRIVE UNITS 200- 600K).

#### Single Phase (Pushbutton Not Explosion- Proof)

Where pushbutton may be located outside the  
hazardous area, 115V single voltage, 1 phase,  
60 Hz, Type CS, 3 lead, not instantly reversible,  
15 minute duty, explosion-proof control motor  
mounted on MOTO DRIVE case, with built-in  
Thermal Protection and one pushbutton station  
in NEMA 1 enclosure. Voltage at pushbutton  
station same as motor ..... **\$1120.00 List**

#### Single Phase (Pushbutton Explosion-Proof)

Where all components must be explosion-  
proof, 115V single voltage, 1 phase, 60 Hz,  
Type CS, 3 lead, not instantly reversible, 15  
minute duty, explosion-proof control motor with  
built-in Thermal Protection mounted on MOTO  
DRIVE case and one pushbutton station in  
explosion-proof enclosure. Voltage at pushbut-  
ton station same as motor. .... **\$1287.00 List**

### EXPLOSION-PROOF ELECTRIC REMOTE CONTROL (SIZE 100 MOTO DRIVE)

Electric remote control is floor mounted, fur-  
nished with sprocket and chain drive to shifting  
screw on MOTO DRIVE. Electrical characteris-  
tics of motor and control components same as  
listed for sizes 200—600K. **Same List Prices  
Apply.**

<sup>(1)</sup> These price additions are for pricing new equipment only.



# Modifications

## TACHOMETERS<sup>(1)</sup>

REEVES A-C (050 THRU 600K)

The generator will always be "0" ring driven. When ordered with new units, the package includes the indicating meter with standard enclosure, 10 feet of #18, two wire cables, the generator, and mounting of the generator. Indicators are standardly graduated in rpm, but can be graduated in any units specified. Two or more indicators may be connected to the same generator but factory adjustment will be necessary. Up to 300 feet of cable may be used without affecting the accuracy of the instrument. The rugged construction of the instrument assures many years of trouble-free service. The 4½" pivot and jewel type indicator comes complete with internal calibration potentiometer. A pressed steel meter case is included with internal calibration potentiometer. A pressed steel meter case is included for other than flush panel mounting.

(1) These price additions are for pricing new equipment only.

### DISCOUNT—RE-12a

#### Specification Requirements

Indicator Legend and Graduation

Basic Package ..... **\$358**

Add for Additional Indicator ..... **\$156**

Add for Mounting Parts Only ..... **\$46**

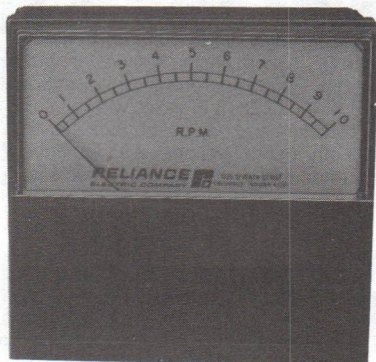
Add for Dual Scale Marking ..... **\$30**

Add for Dust-Tight, Water-Resistant

Meter Enclosure ..... **\$156**

Add for Additional Cable... **\$80 per foot**

An optional dual scale indicator, complete with two calibration potentiometers and selector switch is available in the standard indicator mounting case, add to Basic Package..... **\$98**



**5 Volt per 1000 rpm**  
**Over Accuracy  $\pm 3\%$  of Full Scale**

**M1-70**

## TACHOMETERS DIGITAL READOUT<sup>(1)</sup>

When ordered with new units, the package includes the following:

Digital counter for bench or panel mountings.

10 feet of signal input cable, complete with Amphenol connector for connection to magnetic pickup. May be extended up to 500 feet.

Magnetic pickup in an enclosed housing mounted on the MOTO DRIVE.

8 feet of a 115 volt A-C power lead with a grounded connector.

The standard digital readout will be in output rpm, but can be programmed, at request, to represent any time rate in units, such as feet per minute, or revolutions per hour, etc. Also available are reverse readings, such as minutes baking time.

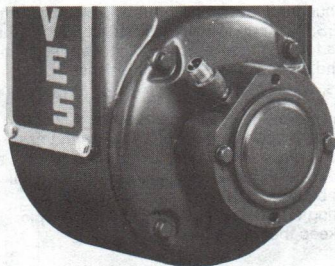
The compact design offers extreme accuracy, plus or minus one count, and provides for continuous readout with instantaneous update at the end of each counting period. The Digital Ta-

chometer is calibrated as specified and tested before shipment and should need no further adjustments or calibration. However if desired, it can be easily changed in the field. Instructions included.

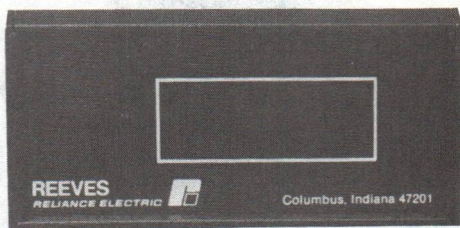
### DISCOUNT—D-49a

#### LIST PRICING AND OPTIONS

Basic Package .....	\$577.00
Add for Explosion-Proof Pickup (2) .....	384.00
Add for Explosion-Proof Meter Housing (3) .....	709.00
Add for NEMA 4X and 13 Meter Housing (4) .....	167.00
Add for Additional Input Cable (per foot) .....	1.55
Meter Only .....	403.00
Add for Bench Mount Meter .....	71.00



MAGNETIC PICKUP



DIGITAL COUNTER

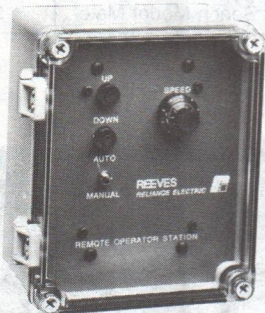
- (1) These price additions are for pricing new equipment only.
- (2) Class I, Groups A, B, C, D, Class II, Groups E, F, G. Signal input cable not furnished with explosion-proof pickups.
- (3) Class I, Group D, Class II, Groups E, F, G. Neither signal input cable or A-C power leads is furnished for meters in XP housings.
- (4) A-C Power cable not supplied.



# RAC™

## REEVES Automatic Controller

The new REEVES Automatic Controller (RAC) is an extremely versatile device that greatly enhances the flexibility and controllability of REEVES MOTO DRIVE unit and MAS 51 mechanical adjustable speed drives. An elegant marriage of the best mechanical and electrical variable speed drive characteristics has been achieved in one, compact package. The ruggedness and ease of service, long associated with REEVES mechanical drives, can now be complemented by the accuracy and controllability most often associated only with much more costly and complicated electrical drives.



There are hundreds of potential MAS applications where the REEVES RAC will operate successfully. When the need arises to determine specific component selections or wiring and interconnect schemes for specific applications, contact REEVES Application Engineering.

Given today's ever increasing demand for automated process variable speed control, the RAC is the next logical step to move MAS drives into the future. It's a marriage of technologies—mechanical and electrical—that serves both the needs of people who design manufacturing or process systems, and the people who must keep them running.

# RAC™

## Reeves Automatic Controller

1. **True speed sensing.** Closed-loop feedback is totally contained within the furnished control system so accuracy is not dependent on customer supplied equipment. A required output speed will be maintained, regardless of load fluctuations.
2. Applies signal directly to programmable digital counter for **tachometer/process rate indications.**
3. Operable in many control modes:
  - Single Drive with Internal Speed Control
  - Single Drive Following External Control Signal
  - Parallel Proportional Multiple Drive
  - Master-Slave Multiple Drive
  - Cascaded Multiple Drive
4. Operates from **internal speed reference** or externally supplied 0-5 volt (0-5mA) **process signal.** Internally scaleable to operate from any industry standard voltage or current signals, such as 4-20 mA, 0-10 V D-C, etc., even over limited speed ranges. Internal/external modes are switch selectable from RAC front panel. Input impedance 1000 ohms.
5. Capable of **continuous control duty** and

adjustable to accuracies exceeding 1% of the set speed.

6. **Adjustable control sensitivity** (deadband) for less than continuous duty operation as desired.
7. **Electronically adjustable minimum and maximum speeds, (zero and span.)** Backup adjustable limit switches are included for safety or full manual pushbutton operation.
8. Complete field **retrofit capability** on existing MOTO DRIVE and MAS 51 drives.
9. Drive mounted hardware is safe for **washdown.**
10. Control mounted **speed change indicators** (LED's) aid operation and diagnostics.
11. **No regular maintenance** is required.
12. Electronic control is equipped with a **built-in power supply** for operation directly from a standard 115 volt AC source. As a result, no filtering of the power supply is required. Analog circuitry does not generate EMI/RFI.

**NOTE: For Explosion Proof or fast shifting requirements the RAC/AIRTROL is available.** This device mates the RAC Control Head with the AIRTROL Pneumatic shifting actuator. Consult REEVES Application Engineering.

Discount Schedule D-49a, D-49b(1)

SIZE	ENVIRONMENT	LIST PRICES RAC (1)		LIST PRICES RAC AIRTROL
		NEW	RETROFIT (2)	NEW (3)
050	Standard	N/A	N/A	N/A
	Washdown	N/A	N/A	N/A
	Hazardous	N/A	N/A	N/A
100	Standard	847.00	1076.00	2433.00
	Washdown	847.00	1076.00	2572.00
	Hazardous	N/A	N/A	2850.00
200	Standard	847.00	1076.00	2433.00
	Washdown	847.00	1076.00	2572.00
	Hazardous	N/A	N/A	2850.00
300	Standard	927.00	1256.00	2433.00
	Washdown	927.00	1256.00	2572.00
	Hazardous	N/A	N/A	2850.00
400	Standard	2938.00	3028.00	2806.00
	Washdown	2938.00	3028.00	2950.00
	Hazardous	N/A	N/A	3238.00
500	Standard	3202.00	3359.00	2806.00
	Washdown	3202.00	3359.00	2950.00
	Hazardous	N/A	N/A	3238.00
600 600 K	Standard	3680.00	3825.00	2806.00
	Washdown	3680.00	3825.00	2950.00
	Hazardous	N/A	N/A	3238.00

(1) Multiple drive configurations will require additional hardware for proper interface. For application, selection and pricing contact REEVES Application Engineering 812-376-1100.

(2) All Retrofit applications require existing drive nameplate data at time of order.

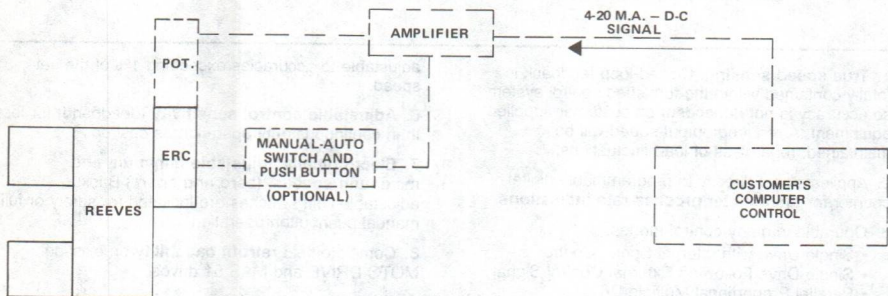
(3) For Retrofit RAC AIRTROL. Contact REEVES Application Engineering.



# Modifications

## ERC PACKAGE CONTROL SYSTEMS

### OPEN LOOP INSTRUMENTATION CONTROLLED ERC SIZES 400-600K



Many new pump installations require computer or instrumentation control as a means of obtaining the ideal in operating efficiency and control. Some of these installations may require only the signal be connected to the REEVES—an open loop system.

The REEVES MOTO DRIVE unit is controlled by a 4 to 20 milliamp D-C signal from the computer or instrumentation. This is accomplished through an amplifier and a potentiometer which boosts the signal to 115 volt power.

Some installations may require that a manual-auto switch and a fast-slow pushbutton be included in the signal line to the REEVES. This permits bypassing the automatic signal in an emergency, and permits changing speeds manually by the pushbuttons.

Following is an itemized list of accessories needed to make the control circuit:

#### ERC

Size 300 to 600K Ball Screw ERC .See M1-68

#### POTENTIOMETER

Size 400 to 600K Ball Screw ERC includes a Potentiometer.

#### ■AMPLIFIER SIZES

400—600 30 HP, 5:1 to max. range only, (1)  
40 & 50 HP, max. range only (1)...\$1856 Lis

NEMA 4 Enclosure

Unmounted

Input: 1 to 5, 4 to 20, or 10 to 50

Milliamp D-C

Output: 115-1-60 115VAC—1 phase—60 Hz

Input Impedance is 150 ohms.

#### MANUAL AUTO SWITCH WITH PUSHBUTTONS.....\$219 Lis

Switch is in a NEMA 12 enclosure  
ERC Pushbuttons—Unmounted

#### BIAS AMPLIFIER .....\$1101 Lis

NEMA 4 Enclosure

Unmounted

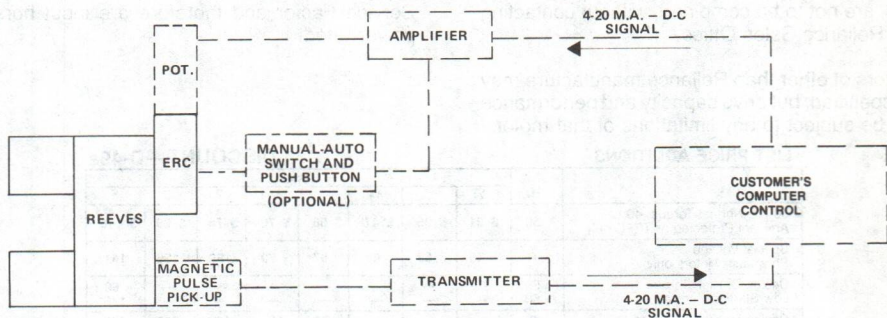
Input: 4 to 20 M.A. D-C

Output: Adjustable for 4 to 8, 4 to 12, or 4 to 16  
M.A. D-C

- (1) For Narrower Speed Range units than those listed above, the Control Signal Range must be reduced by inserting a Bias Amplifier between the Signal Source and the Control Amplifier.

Still Available but RAC Recommended For  
New Applications.

**CLOSED LOOP  
INSTRUMENTATION CONTROLLED ERC  
SIZES 400-600K**



Many new pump installations require computer or instrumentation control as a means of obtaining the ideal in operating efficiency and control. Some of these systems will require a signal be connected to the REEVES with feedback to the control, completing a closed loop system.

The REEVES MOTO DRIVE unit is controlled by a 4 to 20 milliamp D-C signal from the computer or instrumentation. This is accomplished through an amplifier and a potentiometer which boosts the signal to 115 volt power. The feedback is accomplished through a Pulse Pickup and a transmitter which transforms frequency to a 4 to 20 milliamp signal closing the loop to the computer or other instrumentation.

Some installations may require that a manual-auto switch and a fast-slow pushbutton be included in the signal line to the REEVES. This permits bypassing the automatic signal in an

emergency, and permits changing speeds manually by the pushbuttons.

Following is an itemized list of accessories needed to make the feedback circuit:

**DISCOUNT—D-49a**

**FEEDBACK**

Magnetic Pulse Pickup .....\$317 List

**TRANSMITTER**

Unmounted .....\$1345 List

In NEMA 4 Enclosure

Output: 4 to 20 milliamp D-C

Digital Meter (optional) Panel Mount .\$281 List

Bench Mount.\$354 List

Still available but RAC recommended for New Applications.



# Modifications

## MODIFIED MOTORS (3)

Modifications apply to both 1800 and 1200 rpm motors, except as noted.

Modifications, other than special voltage addition, are not to be combined, without contacting the Reliance Sales Office.

Motors of other than Reliance manufacture may be specified, but drive capacity and performance will be subject to any limitations of that motor.

List additions apply only when ordered with new MOTO DRIVE units.

Many special motors will not have the REEVES Service Factor and therefore are input horsepower rated.

### LIST PRICE ADDITIONS

### DISCOUNT—D-49a

	Hz	HP							
		1/4	1/2	3/4	1	1 1/2	2	3	5
50 Hz, Normal Torque, 40°C Ambient Protected or TEFC only	50	\$ 31	\$ 36	\$ 47	\$ 56	\$ 70	\$ 78	\$ 89	\$ 106
Special Voltage Polyphase Motors only	—	46	53	60	67	70	89	136	141
Design C, High Torque, Low Starting Current	60 50	— —	— —	— —	— —	— —	— —	— —	69 176
Design D, High Slip 5-8%, 4 Pole only	Open Enclosed	60 60	— —	— —	90 209	104 236	160 327	195 382	266 554
Two-Speed Constant Torque, Single winding 230 or 460 or 575 volts, 1800/900 rpm, open 3 phase only	60	213	240	359	299	336	284	373	426
Totally Enclosed, Fan-Cooled, 40°C Ambient	60	—	—	—	—	—	—	297	317
Corrosion-proof Enclosures: Frame 48-Chemical Plant Type Frames 56, 140-T Type "SXT" Frame 182T up Type "XT"	60	125	125	125	183	197	264	328	345
Explosion-proof Class I, Group D, Class II, Groups F & G	60 50 60	167 211 289	167 211 289	183 239 306	183 239 306	192 261 314	409 448 531	534 676 534	558 964 558
Class BE Insulation Open and Enclosed (1)	60	111	111	111	111	111	92	92	127
Class BJ Insulation Open and Enclosed	60	210	210	210	210	210	39	39	40
Class F Insulation Open and Enclosed	60	236	236	236	236	236	61	61	63
Altitude—3301 to 9900 Feet	60	39	42	53	56	58	36	47	49
Scoop-Mount Motor uses foot mounted motor (2)	60	104	104	125	125	146	146	206	271
Cast Iron Conduit Box Open and TEFC	60	36	36	36	36	36	36	44	46
RELiance—HIGH EFFICIENCY MOTORS									
Protected, XE,	60	—	—	—	—	—	—	139	216
TEFC, XE	60	—	—	—	245	271	292	492	527
TEFC, XE, XT	60	—	—	—	385	431	475	670	757
TEFC, XE, XT, XP	60	—	—	—	705	748	792	1038	1122
High Performance TEFC	60	164	164	172	172	193	215	—	—
SINGLE-PHASE—115/230 VOLTS—CAPACITOR START—INDUCTION RUN									
Totally Enclosed, 40°C Ambient	60	\$ 53	\$ 83	\$128	\$264	\$311	\$534	\$687	—
Explosion-Proof Class I, Group D or Class II, Group F	60	158	203	217	—	—	—	—	—

- (1) Epoxy treated insulation, multiple dips and bakes of epoxy varnish. For atmospheres with excessive moistures and/or chemicals.
- (2) The compact cast-iron Scoop Mounting meets JIC standards. It is designed to rigidly support a foot-mounted, standard NEMA horizontal motor. The mounting is available for all MOTO DRIVE assemblies. Motor is included.
- (3) These price additions are for pricing new equipment only.

# **OLD NEMA 7EQ MOTORS TO MEET JIC SPECIFICATIONS**

Power	1	1½	2	3	5	7½	10	15	20	25	30
Foot Mount, TE, 460 Volt EQ Spec. Delco Motor	\$564	\$597	\$607	\$681	\$829	\$810(3)	\$1420	\$1946	\$2508	\$3029	\$3560
Coop for "JIC" Specifications	130	151	151	199	271	354	475	627	751	875	999
Total 7EQ/JIC Spec. Adder	694	748	758	879	1099	1520	1895	2573	3259	3904	4559

\*) "C" flow assembly not available on size 353.

## **LIST PRICE ADDITIONS (Cont'd.)**

## **DISCOUNT—D-49a**

	Hz	HP							
		7½	10	15	20	25	30	40	50
50 Hz, Normal Torque, 40°C Ambient Protected or TEFC only	50	\$ 164	\$ 210	\$ 248	\$ 328	\$ 653	\$1050	\$1131	\$1590
Special Voltage Polyphase Motors only	—	161	161	199	199	248	248	305	305
Design C, High Torque, Low Starting Current	60 50	164 328	210 417	248 495	342 653	452 1108	518 1569	—	—
Design D, High Open Slip 5-8%, 4 Pole only	60	425	590	827	1029	1331	—	—	—
Enclosed	60	863	1079	1986	2684	3454	—	—	—
Two-Speed Constant Torque, Single winding 230 or 460 or 575 volts, 1800/900 rpm, open 3 phase only	60	622	823	1042	1137	1560	1488	—	—
Totally Enclosed, Fan-Cooled, 40°C Ambient	60	602	627	837	889	1436	1499	1134	1361
Corrosion-proof Enclosures: Frame 48-Chemical Plant Type Frames 56, 140-T Type "SXT" Frame 182T up Type "XT"	60	648	673	912	967	1548	1615	1266	1497
Explosion-proof Class I, Group D or Class II, Groups F & G Class I, Group C	60 50 60	901 901 901	930 930 930	1263 1263 1263	1275 1275 1275	2003 2003 2003	2069 2069 2069	1885 1885 1885	2159 2159 2159
Class BE Insulation Open and Enclosed (1)	60	106	132	176	222	262	308	391	472
Class BJ Insulation Open and Enclosed	60	40	40	40	40	114	114	114	114
Class F Insulation Open and Enclosed	60	109	109	144	237	312	312	312	312
Altitude—3301 to 9900 Feet	60	83	83	109	109	181	181	239	239
Scoop-Mount Motor uses foot mounted motor (2)	60	354	475	627	751	875	999	1122	1243
Cast Iron Conduit Box Open and TEFC	60	46	46	94	94	94	94	94	94
<b>RELIAANCE—HIGH EFFICIENCY MOTORS</b>									
Protected, XE,	60	332	366	383	606	704	878	966	1062
TEFC, XE	60	901	971	1311	1704	2422	2379	2029	2271
TEFC, XE, XT	60	1154	1261	1668	2540	3432	3495	2918	3367
TEFC, XE, XT, XP	60	1586	1691	2190	3311	4549	4682	4042	4484
High Performance TEFC	60	—	—	—	—	—	—	—	—
<b>SINGLE-PHASE—115/230 VOLTS—CAPACITOR START—INDUCTION RUN</b>									
Totally Enclosed, 40°C Ambient	60	—	—	—	—	—	—	—	—
Explosion-Proof Class I, Group D or Class II, Group F	60	—	—	—	—	—	—	—	—

- 1) Epoxy treated insulation, multiple dips and bakes of epoxy varnish. For atmospheres with excessive moistures and/or chemicals.
- 2) The compact cast-iron Scoop Mounting meets JIC standards. It is designed to rigidly support a foot-mounted, standard NEMA horizontal motor. The mounting is available for all MOTO DRIVE assemblies. Motor is included.
- 3) These price additions are for pricing new equipment only.



# Modifications

## MOTO DRIVE ENCLOSURES

### XT Belt and Gear Case

For sizes 050 through 200, XT Belt and Gear Case features are standard. This construction features all corrosion resistant hardware both internal and external, gasketed cast iron or steel inspection plates, double lip seals on both the variable speed and output shafts, 1/4-inch drain hole in the belt case, splash-proof reducer vent, stainless steel nameplates, and cast iron belt case and gear case. Whenever possible, belt cases will be totally enclosed except for a drain hole in the bottom of the case. As required for ventilation purposes, a limited number of belt cases will have a small screened opening in the bottom of the belt case instead of a drain hole. Units that are available with this opening are listed in the modification section of the rating tables.

The XT MOTO DRIVE unit is specially constructed to withstand the corrosive atmospheres of chemical plants, oil refineries, paper mills, mines, etc. When combined with an SXT or XT Drive Motor, it will provide long life under harsh environmental conditions.

XT features are also available for sizes 300-600. Check the modification section in the rating tables for list additions.

### Easy Clean/BISSC

Easy Clean Belt and Gear Cases are designed to resist the corrosive action of food acids and washdown by steam detergents and sanitizers. Easy clean meets the rigid sanitary codes of Federal, State, and Local government agencies and industrial committees. This enclosure is typically used in the following applications:

Food Processors  
Canners  
Meat Packers

Bakeries  
Dairies  
Drug and Cosmetic Manufacturers

### Easy Clean Sanitary Type

The Easy Clean Sanitary Type MOTO DRIVE unit is identical to the Easy Clean MOTO DRIVE unit except with the addition of sealable speed stops which are required for high temperature, short-time pasteurizers.

# DISCOUNT—D-49a

FEATURE		LIST PRICES—ADD TO BASIC PROTECTED THREE-PHASE, 60 Hz, 230/460 VOLT MOTO DRIVE PRICE					
		No. 050		No. 100		No. 200	
Nominal Belt Case Unit HP		1/4	1/2	3/4	1	1 1/2	2
<i>Easy Clean Type (3)</i> Case Enclosure Addition		N.C.	N.C.	N.C.	N.C.	N.C.	N.C.
Motor Enclosure Addition		\$117	\$117	\$117	\$139	\$167	\$289
TOTAL EASY CLEAN ADDITION		117	117	117	139	167	289
<i>Easy Clean Sanitary Type (2) (3)</i>		Use <i>Easy Clean</i> case addition and <i>Easy Clean</i> motor addition, plus <b>\$36.00</b> List for Sealable Speed Stops required for high temperature short time pasteurizers. (1) (3)					
BISSC TYPE							
Case Enclosure Addition		70	70	78	95	150	170
BISSC Motor Addition		117	117	117	139	167	289
TOTAL BISSC ADDITION		186	186	195	234	317	459
Paint (Standard)		Above drives include standard Reliance Green enamel.					
Paint (Special)		When special paint, compatible with Reliance Standard Primer, is required, such as White Primer or White Enamel, add <b>\$56.00</b> list plus 3% of complete drive list price adjusted to the nearest dollar.					

# DISCOUNT—D-49a

FEATURE		LIST PRICES—ADD TO BASIC PROTECTED THREE-PHASE, 60 Hz, 230/460 VOLT MOTO DRIVE PRICE			
		No. 300		No. 400	
Nominal Belt Case Unit HP		5	7 1/2	10	15
<i>Easy Clean Type (3)</i> Case Enclosure Addition		\$ 176	\$193	\$213	\$ 233
Motor Enclosure Addition		409	717	757	1073
TOTAL EASY CLEAN ADDITION		584	909	970	1307
<i>Easy Clean Sanitary Type (2) (3)</i>		Use <i>Easy Clean</i> case addition and <i>Easy Clean</i> motor addition, plus <b>\$36.00</b> List for Sealable Speed Stops required for high temperature short time pasteurizers. (1) (3)			
BISSC TYPE					
Case Enclosure Addition		213	233	250	270
BISSC Motor Addition		409	717	757	1073
TOTAL BISSC ADDITION		627	955	1016	1353
Paint (Standard)		Above drives include standard Reliance Green enamel.			
Paint (Special)		When special paint, compatible with Reliance Standard Primer, is required, such as White Primer or White Enamel, add <b>\$56.00</b> list plus 3% of complete drive list price adjusted to the nearest dollar.			

- (1) These additions are for *Easy Clean* TEFC motors. For TENV motors in fractional horsepower sizes only, refer to your Reliance Sales Representative.
- (2) For other motors to be used with Sanitary type case enclosure, refer to Modified Motor Section or to your Reliance Sales Office.
- (3) Motor Modifications or other accessories such as E.R.C., AIRtrol, Tachometers, etc., may be supplied if they suit the application. Add only the catalog list additions.

However, any accessory added is not necessarily of the "Sanitary type" design. Contact the Reeves Product Department if assistance is required.



# Modifications

## MOUNTINGS

### FLANGE OUTPUT MOUNTING

#### FLANGE OUTPUT MOUNTING — LIST ADDITIONS APPLY FOR THE FOLLOWING FLANGE MOUNTED UNITS:

NEMA C-Face: Available in no reducer and parallel single reducer units, sizes 050 — 341.

NEMA D-Flange: Available in no reducer and parallel single reducer units, sizes 100 — 661.

Non-NEMA Flange: Available in most single and combination right angle units.

#### DISCOUNT—D-49a

LIST PRICE ADDITION FOR NO REDUCER OR SINGLE REDUCER PARALLEL MOTO DRIVES ONLY	Maximum rpm of Output Shaft	Horsepower															
		1/4	1/2	3/4(1)	1(1)	1½(1)	2	3	5	7½	10	15	20	25	30	40	50
	4660 to 2996	\$ 56	\$ 56	\$ 56	\$ 56	\$ 56	\$ 56	\$ 70	\$ 72	\$319	\$368	\$449	\$ 515	\$ 590	\$720	\$720	\$720
	2925 to 1500	56	56	56	56	56	56	70	72	115	115	130	130	199	199	311	311
	1499 to 316	83	114	133	133	156	175	209	271	319	368	449	515	590	720	720	720
	315 to 230	117	161	183	247	297	350	414	535	648	754	901	1042	1203	—	—	—
RIGHT ANGLE FLANGE	All Speeds	83	114	133	133	156	175	209	271	319	368	—	—	—	—	—	—

(1) Size 111. Vertical Shaft Down not available in Gear Ratios 1.2:1 and 1.4:1.

## SHAFT EXTENSIONS

### SPECIAL OUTPUT SHAFT EXTENSIONS

MOTO DRIVE units are furnished with standard output shaft extensions as dimensioned in the Dimension Section of this catalog. An extra charge is necessary for any variation of the output shaft extension. For a lesser diameter, shorter length or longer length (1/4 inch increments), use the list price addition from the appropriate table below. For other variations, i.e. larger shaft diameter, threading, drilling, tapping or tapering, refer to the REEVES Product Department. List prices apply only when ordered with new MOTO DRIVE units.

### FOR UNITS WITHOUT REDUCER OR WITH PARALLEL REDUCERS

- Use special shaft charge from Table A for unit size and quantity desired (identical non-standard modification).
- For longer than catalogue length, add the appropriate list addition from Table B to that Determined from Table A.
- For special output shafts for right angle reducers, contact REEVES Product Department.

### PRICE LISTS

#### A) SPECIAL SHAFT CHARGE

#### DISCOUNT—D-49a

Size	Qty. 1	Qty. 2-4	Qty. 5 & Up
050-200	\$375 ea.	\$300 ea.	\$225 ea.
300-Up	432 ea.	345 ea.	259 ea.

#### B) FOR EXTRA LENGTH SHAFT

For each 5" of shaft or fraction thereof beyond standard  
DISCOUNT—D-49a

Size	Non-Geared	Single	Double/Triple
050-200	\$35.00	\$39.00	\$42.00
300-600K	50.00	55.00	\$66.00

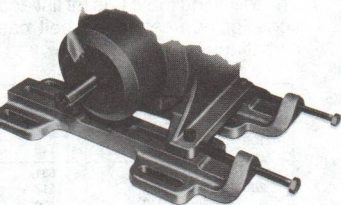
## MOUNTING, SPECIAL

All REEVES MOTO DRIVE units having single, double or triple reduction gearing may be modified for mounting with the output shaft inclined up 30° or down 30° from horizontal, and must be specified on the order. . . . . \$209 List

## SPECIAL ASSEMBLIES

45° Assemblies to the left (L) or right (R) from vertical are available on most units at no extra charge when specified on original order. Direct all inquiries to the local Reliance Sales Office or the REEVES Product Dept.

### NO REDUCER OR PARALLEL REDUCER



n single reducer MOTO DRIVE unit, where the output shaft is below the vari-  
pole shaft, adjusting rails are available  
only for assemblies 127 and 131 in  
izes 221 thru 661.

Reducer Size	Unit		Rail No. (2 Req'd)	Sets of Two
	Drive Size	Type (2)		List Price (1)
01, 02 03	050, 051 052, 053	Standard & Trunnion	702834-26-A	\$139
11, 12 13 & 21	100, 111 112, 113 121	Trunnion Std. Vert., & Inv. Vert.	702834-26-B	167
21, 22 23, 31	122, 123 200, 221 222, 223 231	Standard & Inv. Vert.	702834-26-C	222
31, 32 33, 41	133, 232 233, 300 331, 332 333, 341	Standard & Inv. Vert.	702834-26-D	243
11, 12 13, 21	100, 111 112, 113 121	Std. Horiz. Units	702834-26-E	167
21, 31	200, 221 231	Trunnion	702834-26-F	222
31, 41	300, 331 341	Trunnion	702834-26-G	243
41, 42 43, 51	243, 342 343, 400 441, 442 443, 451	Standard & Inv. Vert.	702834-26-J	432
41, 51	400, 441 451	Trunnion	702834-26-K	243
51, 61	500, 551 561	Trunnion	702834-26-H	432
51, 52 53, 52H 53H, 61	353, 353H 452, 453 453H, 500 551, 552 552H, 553 553H, 561	Standard & Inv. Vert.	702834-26-L	432
52, 52H 61	600, 652 653H, 661	Std., Trun., & Inv. Vert.	702834-26-L	432

(1) These price additions are for use when pricing new equipment or for pricing as an accessory for existing equipment.

(2) Not available in assemblies 103, 103-L, 103-R, 103-A, 103-AR, 103-AL, 115, 119, 115-A, 119-A, 109-A, 109-AR, 109-AL, 127-A, 131-A.

Also assemblies 109, 109R, 109L, 127, 131 (050—100 only).

## PAINT, SPECIAL

Standard finish for MOTO DRIVE units are two coats of high quality blue-green enamel. For enamel finish to other specifications, compatible with Reliance standard primer, add basic charge of \$56 list, plus 3% of complete list price, adjusted to the nearest dollar. Include paint specifica-

tions and identification on order. For two or more identical MOTO DRIVE units on a single order of one shipment, make the basic charge of \$56 list, one time only. For other finishes contact your Distributor or Reliance Sales Engineer.



# Modifications

## SERVICE FACTOR PRICE POLICY

Service Factor Price additions are listed for pricing purposes only. The appearance of a given price for a motor, MOTO DRIVE case or reducer is subject to any limitation in mounting or availability of product, and is not an indication the company is committed to furnish such item or combinations of items. Complete MOTO DRIVE specifications and availability should be determined before quoting. The following steps will provide the possible reducer, belt case and motor combinations which are available.

1. Determine if there are any limitations in mounting motor frame to MOTO DRIVE belt case (See Dimension Section, Drive Motor Frame Size Page and Table A.)
2. Determine reducer size needed for 1.4 or 2.0 Service Factor from MOTO DRIVE "Reducer" Rating Curves. (See Engineering Data Section.)
3. Determine if the reducer selected will mount on the MOTO DRIVE belt case. (See Table B for Parallel Reducers. Refer Right Angle Reducer service factor requests to the REEVES Product Department.)

TABLE A

Belt Case	Motor Frame Size Mounting Limitations	
	Min.	Max.
050	56	56
100	56CZ	145T
200	56CZ	184T
300	182T	215T
400	213T	256T
500	254T	326T
600	284T	326T
600K	284T	326T

TABLE B

Belt Case	Parallel Reducer - Mounting Limitations		
	Single	Double	Triple
050	01	02	03
100	11, 21	12, 22, 32	13, 23, 33
200	21, 31	22, 32, 42	23, 33, 43
300	31, 41	32, 42, 52, 52H	33, 43, 53, 53H
400	41, 51	42, 52, 52H	43, 53, 53H
500	51, 61	52, 52H	53, 53H
600	61	52, 52H	53, 53H
600K	61	52H	NA

4. After the MOTO DRIVE unit selection is made, the price may be determined from one or more of the following tables. The price additions, as shown in tables C, D, E, F, are to be added to the current MOTO DRIVE unit list price for the non-service factored price based on hp and speeds.

- (1) These service factored belt cases will also be furnished with oversize motor frames at the list price additions shown. Refer to the dimension section, drive motor frame size page for compatible drive motor frame sizes for a given belt case size. The smallest compatible motor will be furnished for those ratings indicated above.

- (2) Denotes 1200 rpm motors. All others 1800 rpm.

## SERVICE FACTOR CASE ADDITIONS

The following table C is for list additions for non-cataloged belt case hp ratings.

TABLE C

To Use Belt Case	For HP Rating	List Addition
100	1/4 1/2	\$ 222 145
200	3/4 1 1-1/2	631 517 420
300	2 (1) 3	1168 722
400	5 (1) 7-1/2	1767 829
500	10 (1) 15	1698 1465
600	15 (1) 20 (1) 25	2691 2087 1485
600K	25 30 40	4919 3638 2216

## SERVICE FACTOR MOTOR ADDITIONS

The following Table D is for list additions for using next larger protected motor horsepower size on MOTO DRIVE case. For any other motor modifications i.e., TEFC, 2 speed, etc., use appropriate additions for Service Factored motor.

TABLE D

To Change From Motor HP	To Motor HP	List Addition
1/4	1/2	\$ 25
1/2	3/4	33
3/4	1	47
1	1-1/2	25
1-1/2	2	42
2	3	53
3	5	111
5	7-1/2	216
7-1/2	10	176
10	15	285
15	20	296
20	25 25 (2)	259 380
25	30 30 (2)	178 377
30	40	555

## PARALLEL REDUCERS

TABLE E

Class II—1.4 Service Factor Gear Additions

Max. rpm	1/4	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50
780(1)	\$11	\$25	\$128	\$70	\$78	\$95	\$111	\$144	\$173	\$193	\$248	\$291	\$331	\$366		
640	14	61	128	78	83	100	117	150	181	210	262	305	351	386		
520	19	67	136	78	95	114	125	161	193	224	268	319	363	412		
420	22	78	136	78	100	114	133	173	210	239	294	342	391	437	\$530	\$602
350	22	81	145	89	100	117	136	178	224	250	317	363	409	460	558	636
280	31	81	209	100	122	145	167	213	268	308	368	423	492	544	682	
230	31	83	236	111	128	156	181	233	282	328	397	458	527	587	734	
190	31	83	250	114	139	167	192	248	305	351	423	492	558	636	800	
155	36	89	281	125	147	172	209	270	328	377	460	530	604	694		
125	42	89	297	136	161	186	225	294	345	403	498	576	662	757		
100	42	95	322	145	175	203	239	311	374	446	547	625	720	823		
84	42	106	342	156	183	217	253	331	403	475	581	673	777			
68	44	117	373	167	197	228	284	363	437	515	639	740				
56	53	128	400	181	214	250	300	389	469	564	688					
45	53	145	423	192	236	270	322	429	581	616	754					
37	58	158	456	209	250	289	353	472	633	685						
30	67	167	509	225	270	317	389	518	639	696						
25	70	181	512	239	289	345	423	567	696	757						
20	70	181	578	270	320	378	470	636								
16.5	83	186	631	286	353	409	523	705								
13.5	95	195	714	317	384	453	570									
11	117	217	876	350	425	500	637									
9	128	264	1079	389	—	—	—									
8	195															

## PARALLEL REDUCERS

TABLE F

Class III—2.0 Service Factor Gear Additions

Max. rpm	1/4	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50
780(1)	\$53	\$183	\$206	\$147	\$172	\$203	\$239	\$305	\$368	\$460	\$535	\$622	\$711			
640	61	186	217	156	183	217	259	319	391	484	567	653	751			
520	67	197	220	167	197	236	270	345	423	518	581	699				
420	67	197	239	175	214	247	286	368	449	555	636	743				
350	70	203	250	183	225	253	300	386	475	590	671	806	881	\$993	\$1194	
280	70	289	342	217	261	306	361	460	570	708	794	909	1048	1168		
230	78	309	384	236	286	331	386	498	610	757	852	979	1122	1295		
190	78	322	400	247	300	356	409	530	648	814	912	1053	1203	1384		
155	83	361	445	270	320	373	442	578	694	872	990	1131	1289			
125	95	386	475	289	345	403	481	616	745	935	1071	1240	1416			
100	100	420	523	309	373	436	517	671	812	1030	1171	1361				
84	100	448	550	331	395	464	550	717	869	1105	1252					
68	100	489	589	353	425	498	600	780	944	1111	1356					
56	114	525	631	384	456	537	648	835	1025	1212						
45	125	562	684	409	498	578	703	921	1125	1497						
37	128	612	728	448	537	626	753	993	1238							
30	147	642	795	478	584	684	840	1111	1373							
25	156	687	842	517	626	739	909	1212								
20	170	756	934	573	692	812	1004	1497								
16.5	175	820	990	623	751	878	1129									
13.5	181	909	1137	684	823	967										
11	186	1029	1359	753	912											
9	197	1162	1621	840												
8	220															

(1) For Maximum rpm that is higher, use this price addition for reducer service factor.



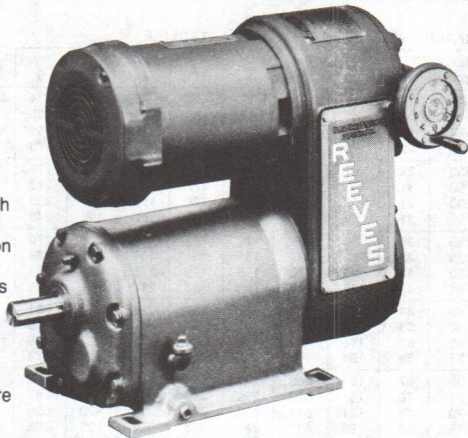
# Modifications

## REEVES® MOTO DRIVE® Processing Special

### For the Food, Chemical and Waste-Water Treatment Industries

The REEVES MOTO DRIVE Processing Special is specifically designed to stand up to the corrosive chemicals and frequent washdown normally encountered in the Food Processing, Chemical Processing and Waste-Water Treatment industries. All external parts of the drive are cast iron and coated with FDA approved white paint. The belt case features the exclusive REEVES XT design plus additional ventilation ports that allow release of excess condensation. All discs are chrome-plated to resist chemical corrosion as are the disc contact areas on all internal shafting. MOTO DRIVE Processing Specials use Easy Clean motors suitable for normal washdown by steam detergents and sanitizers.

Select REEVES MOTO DRIVE Processing Specials are stocked for immediate delivery. See chart below for stock sizes, ratios and list prices. Additional sizes are available on an assembled to order basis.



### General Specifications

**Construction:** All external parts of cast iron.\*

**Finish:** FDA approved white paint.

#### Motor:

EZFC (Easy Clean Fan Cooled)  
thru 25 hp.

XTFC (Extra Tough Fan Cooled) for  
30 and 40 hp.

#### Belt Case:

- Corrosion Resistant Hardware
- Gasketed Inspection Plates
- Double Lip Shaft Seals
- Splash-Proof Reducer Vent
- Stainless Steel Name/Inspection Plates
- Condensation Release Port

**Discs:** Chrome-Plated

**Shafts:** Chrome-Plated in disc contact areas.

\*In case size 050 the bearing plate and the control housing cover are in epoxy painted cast aluminum. In addition some of the handwheel parts are not of cast iron.

## Stock MOTO DRIVE Processing Specials Discount RE-12A

### Stock Moto Drive Processing Specials with Parallel Gearing

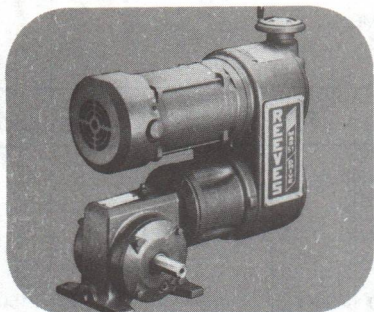
HP <sup>1</sup>	Size	Ratio	RPM		Mounting <sup>2</sup> Assembly	Ordering Number	List Price \$
			Max	Min			
1/2	051	3.4:1	1440	144	101	M05H1001	1578
3/4	113	44.0:1	106	10.6	105	M10H1001	2036
1	112	9.7:1	433	48	105	M10H1002	2059
1 1/2	111	3.93:1	1069	118	101	M10H1003	2181
2	221	6.2:1	680	68	101	M20H1001	3121
3	222	7.6:1	550	55	105	M20H1002	4163
5	332	9.3:1	450	45	105	M30H1001	5766

### Stock MOTO DRIVE Processing Specials with Right Angle Gearing

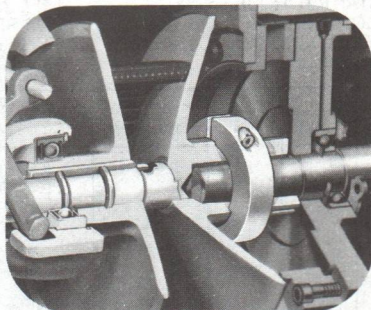
HP <sup>1</sup>	Size	Ratio	RPM		Mounting <sup>2</sup> Assembly	Ordering Number	List Price \$
			Max	Min			
1/2	1C21	288:1	16.2	1.62	170-K1	M10H1004	2000
3/4	1W21	40.0:1	117	11.7	170-K1	M10H1005	1925
1	1W21	40.0:1	105	11.7	170-K1	M10H1006	2139
1 1/2	1C16	70.0:1	60	6.66	170-K1	M10H1007	2542
2	2C21	50.0:1	84	8.4	170-K1	M20H1003	3615

1. All motors are EZFC, 3 phase, 230/460 volts, 60 Hz.

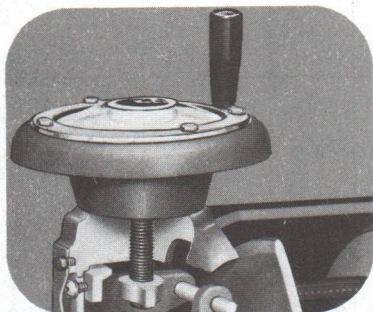
2. All stock handwheels furnished in W position.



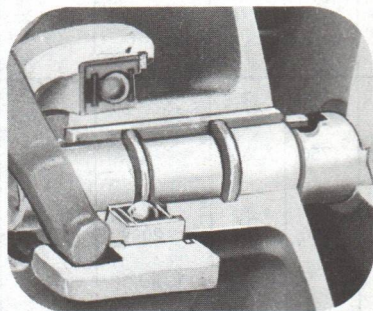
MAS 51 Features



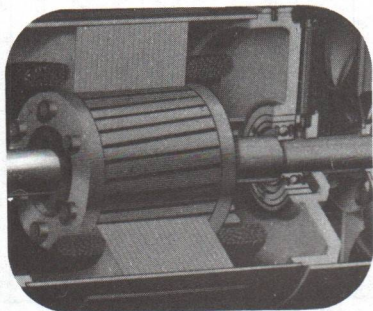
Machined-All-Over Ductile Iron Discs



Screw Type Shifter with Round Handwheel Control. Incorporates Cast Iron Thrust Bearing Housing and Cast Iron Yoke.



Improved No-Lube Bushing & Key Design on the Constant Disc Assembly.



REEVES C-Face Standard Construction Motors for Easy Interchange.

Sizes 050-400	1/4-20 HP 5:1 Speed Range 125 Stock Ratings
Quality	Traditional Reeves quality Incorporates all the product enhancements of the upgraded Moto Drive line.
Price	Competitively priced
Availability	48-hour shipment available (when needed) Limited options available



# 1/4 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

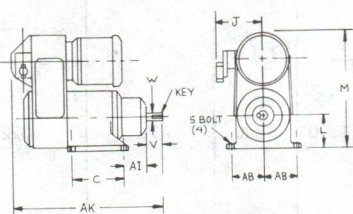

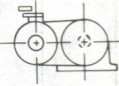
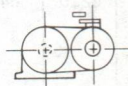
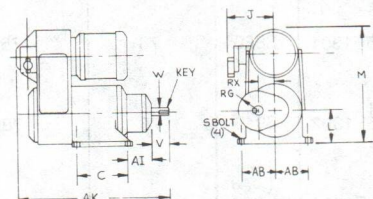







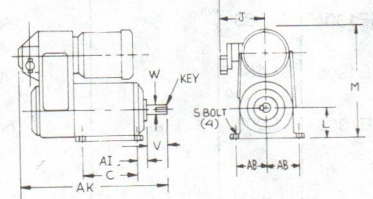
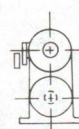
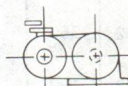
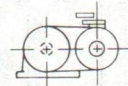
DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
050	3220	644	5	NONE	M05E1100	\$817	68	3220/2150
051	1750	350	9	1.84	M05E1101	\$838	76	1750/1170
051	780	156	20	4.13	M05E1102	\$940	76	780/520
051	520	104	30	6.2	M05E1103	\$981	76	520/350
052	350	70	45	9.3	M05E1104	\$1,030	86	350/230
052	190	38	83	14.0	M05E1105	\$1,063	86	190/155
052	100	20	158	31.4	M05E1106	\$1,120	86	100/68
053	68	13.6	232	38.4	M05E1107	\$1,247	93	68/56

# 1/4 HP Parallel Dimensions

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
												 100	 111   112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
050	6.56	5.56	3.38	12.75	.38	1.56	.62	3.25	2.31	17.62	.19 x .19 x 1.00		
												 101	 102  103  113  115  117  119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
051	6.56	5.56	3.38	12.75	.38	1.62	.75	3.25	2.31	17.69	2.12	1.5	.19 x .19 x 1.00
												 105	 121   122
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
052	6.12	5.56	3.75	13.12	.38	1.88	.88	3.31	2.81	18.00	.19 x .19 x 1.25		
053	6.12	5.56	3.75	13.12	.38	1.88	.88	3.31	2.81	18.00	.19 x .19 x 1.25		



# 1/2 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
050	3220	644	10	NONE	M05E1300	\$840	70	3220/2150
051	1750	350	18	1.84	M05E1301	\$860	78	1750/1170
051	780	156	40	4.13	M05E1302	\$949	78	780/520
051	520	104	61	6.2	M05E1303	\$1,012	78	520/350
052	350	70	90	9.3	M05E1304	\$1,083	88	350/230
052	190	38	166	14.0	M05E1305	\$1,134	88	190/155
052	100	20	315	31.4	M05E1306	\$1,237	88	100/68
053	68	13.6	463	38.4	M05E1307	\$1,298	95	68/56

**ALL STOCKS**

**M1-89**



# 3/4 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
 "C" FLOW VERTICAL/HORIZONTAL  
 "XV" ENCLOSED BELT CASE  
 1.0 SERVICE FACTOR

TEFC MOTOR:  
 1725 RPM, 40°C AMB  
 3-PHASE, 60 HZ  
 230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
050	3220	644	15	NONE	M05E1500	\$862	72	3220/2150
051	1750	350	27	1.84	M05E1501	\$883	80	1750/1170
051	780	156	61	4.13	M05E1502	\$1,063	80	780/520
051	520	104	91	6.2	M05E1503	\$1,165	80	520/350
052	350	70	135	9.3	M05E1504	\$1,186	90	350/230
052	190	38	249	14.0	M05E1505	\$1,308	90	190/55
052	100	20	473	31.4	M05E1506	\$1,350	90	100/68
053	68	13.6	695	38.4	M05E1507	\$1,421	97	68/60

# 3/4 HP Parallel MAS 51 Drive

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
												 100	 III  112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
050	6.56	5.56	3.38	12.75	.38	1.56	.62	3.25	2.31	17.62	.19 x .19 x 1.00		
												 101	 102  103  113  115  117  119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
051	6.56	5.56	3.38	12.75	.38	1.62	.75	3.25	2.31	17.69	2.12	1.5	.19 x .19 x 1.00
												 105	 121  122
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
052	6.12	5.56	3.75	13.12	.38	1.88	.88	3.31	2.81	18.00	.19 x .19 x 1.25		
053	6.12	5.56	3.75	13.12	.38	1.88	.88	3.31	2.81	18.00	.19 x .19 x 1.25		



# 1 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

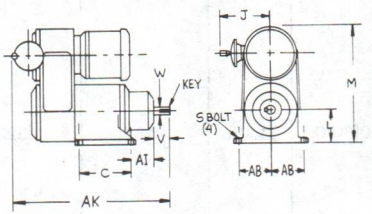
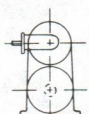
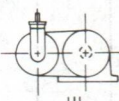
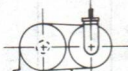
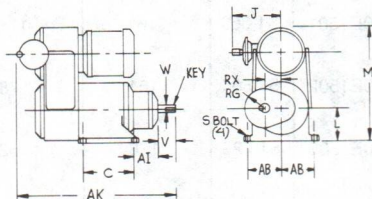
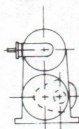

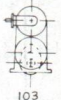




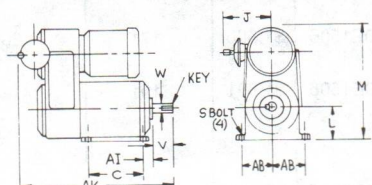
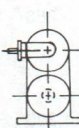
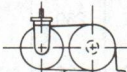
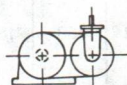
DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
100	3220	644	20	NONE	M10E1300	\$1,113	148	3220/2150
111	1750	350	36	1.76	M10E1301	\$1,134	158	1750/1170
111	780	156	81	3.93	M10E1302	\$1,359	158	780/550
111	520	104	121	6.1	M10E1303	\$1,398	158	520/350
111	420	84	150	6.1	M10E1304	\$1,493	158	420/350
112	230	46	274	14.4	M10E1305	\$1,615	168	230/150
112	125	25	504	21.2	M10E1306	\$1,626	168	125/102
123	68	13.6	927	38.4	M10E1307	\$1,799	196	68/56
123	25	5	2,521	130.0	M10E1308	\$1,963	196	25/23

HP Parallel Dimensions

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
												 100	 111  112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
100	9.00	6.88	4.62	16.31	.50	2.31	.75	3.44	2.81	21.50	.19 x .19 x 1.75		
												 101	 102  103  113  115  117  119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
111	9.00	6.88	4.62	16.31	.50	2.00	.94	3.44	2.81	21.19	2.75	2.4	.25 x .25 x 1.19
												 105	 121  122
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
112	10.25	6.88	4.62	16.31	.50	2.38	1.12	3.44	1.44	21.44	.25 x .25 x 1.56		
123	10.06	6.88	5.75	20.19	.50	3.62	1.75	5.69	1.69	27.56	.38 x .38 x 2.69		



# 1½ HP Parallel MAS 51 Drive

## ALL STOCK UNITS

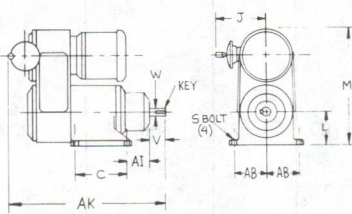
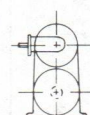
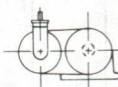
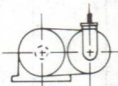
DISCOUNT—D-49

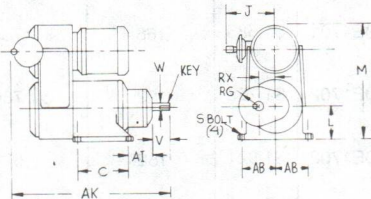
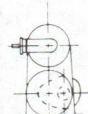






CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

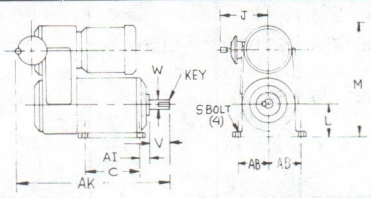
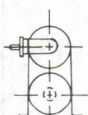
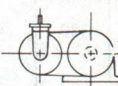
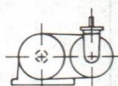
TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
100	3220	644	30	NONE	M10E1500	\$1,165	151	3220/2150
111	1750	350	54	1.76	M10E1501	\$1,369	161	1750/1170
111	780	156	121	3.93	M10E1502	\$1,554	161	780/585
121	520	104	182	6.2	M10E1503	\$1,728	178	520/345
121	420	84	225	6.2	M10E1504	\$1,788	178	420/345
112	230	46	411	14.4	M10E1505	\$1,800	171	230/215
122	125	25	756	20.9	M10E1506	\$1,881	191	125/100
123	68	13.6	1,390	38.4	M10E1507	\$2,106	199	68/56
133	25	5	3,782	130.0	M10E1508	\$2,371	259	25/17

# 1/2 HP Parallel Dimensions

DIMENSIONS (INCHES)											STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
											 100	 111   112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY	
100	9.00	6.88	4.62	16.31	.50	2.31	.75	3.44	2.81	21.50	.19 x .19 x 1.75	

											 101	 102  103  113  115  117  119		
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY	
111	9.00	6.88	4.62	16.31	.50	2.00	.94	3.44	2.81	21.19	2.75	2.4	.25 x .25 x 1.19	
121	9.00	6.88	4.62	16.31	.50	2.88	1.38	3.44	4.50	23.75	3.50	2.75	.31 x .31 x 2.00	

											 105	 121   122	
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
112	10.25	6.88	4.62	16.31	.50	2.38	1.12	3.44	1.44	21.44	.25 x .25 x 1.56		
122	10.06	6.88	5.75	20.19	.50	3.62	1.75	5.69	1.69	27.56	.38 x .38 x 2.69		
123	10.06	6.88	5.75	20.19	.50	3.62	1.75	5.69	1.69	27.56	.38 x .38 x 2.69		
133	12.38	6.88	6.62	21.06	.62	4.38	2.12	6.81	1.44	28.75	.50 x .50 x 3.38		



## 2 HP Parallel MAS 51 Drive

### ALL STOCK UNITS

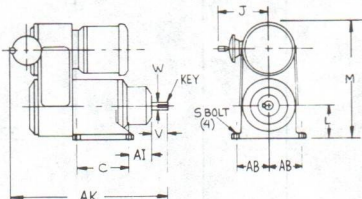

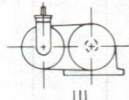
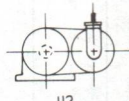
**DISCOUNT—D-49**

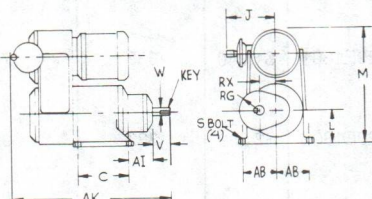
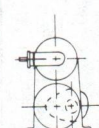
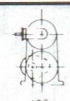
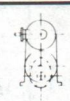




CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

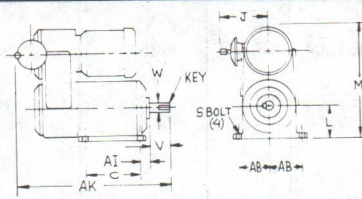
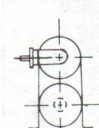
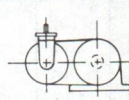
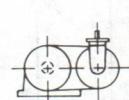
TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
100	3220	644	39	NONE	M10E1700	\$1,350	156	3220/2150
111	1750	350	72	1.76	M10E1701	\$1,585	166	1750/1220
121	780	156	162	4.13	M10E1702	\$1,758	182	780/520
121	520	104	242	6.2	M10E1703	\$1,921	182	520/345
121	420	84	300	6.2	M10E1704	\$2,003	182	420/345
122	230	46	548	14.0	M10E1705	\$2,085	196	230/150
122	125	25	1,008	20.9	M10E1706	\$2,127	196	125/103
123	68	13.6	1,854	38.4	M10E1707	\$2,249	204	68/58
133	25	5	5,042	130.0	M10E1708	\$2,412	264	25/23

# HP Parallel Dimensions

DIMENSIONS (INCHES)											STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
											 100	 111   112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY	
100	9.00	6.88	4.62	16.31	.50	2.31	.75	3.44	2.81	21.50	.19 x .19 x 1.75	

													 101	 102  103  113  115  117  119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY	
111	9.00	6.88	4.62	16.31	.50	2.00	.94	3.44	2.81	21.19	2.75	2.4	.25 x .25 x 1.19	
121	9.00	6.88	4.62	16.31	.50	2.88	1.38	3.44	4.50	23.75	3.50	2.75	.31 x .31 x 2.00	

											 105	 121   122	
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
122	10.06	6.88	5.75	20.19	.50	3.62	1.75	5.69	1.69	27.56	.38 x .38 x 2.69		
123	10.06	6.88	5.75	20.19	.50	3.62	1.75	5.69	1.69	27.56	.38 x .38 x 2.69		
133	12.38	6.88	6.62	21.06	.62	4.38	2.12	6.81	1.44	28.75	.50 x .50 x 3.38		



# 3 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

DISCOUNT—D-4

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
200	3220	644	59	NONE	M20E1300	\$1,697	290	3220/2150
221	1750	350	108	1.84	M20E1301	\$1,840	332	1750/1170
221	950	190	199	2.76	M20E1302	\$2,289	332	950/780
221	420	84	450	6.2	M20E1303	\$2,635	332	420/370
222	280	56	675	9.3	M20E1304	\$2,738	352	280/230
222	125	25	1,513	20.9	M20E1305	\$2,883	352	125/110
233	68	13.6	2,780	38.4	M20E1306	\$3,087	409	68/56
243	30	6	6,302	86.5	M20E1307	\$3,802	580	30/25

HP Parallel Dimensions

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
200	8.50	8.75	5.75	20.19	.50	2.88	1.00	5.69	3.25	26.88	.25 x .25 x 2.06		
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
221	8.50	8.75	5.75	20.19	.50	2.88	1.38	5.69	3.25	26.88	3.50	2.75	.31 x .31 x 2.00
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
222	10.06	8.75	5.75	20.19	.50	3.62	1.75	5.69	1.69	27.62	.38 x .38 x 2.69		
233	12.38	8.75	6.62	22.69	.62	4.38	2.12	6.81	1.44	29.94	.50 x .50 x 3.38		
243	16.12	8.75	8.12	25.69	.75	5.12	2.50	8.25	2.44	35.56	.62 x .62 x 3.94		



# 5 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

DISCOUNT—D-49

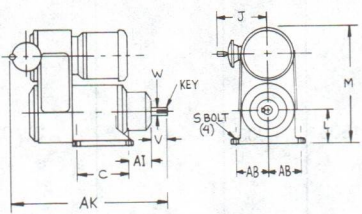
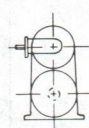
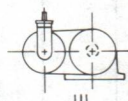
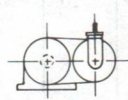
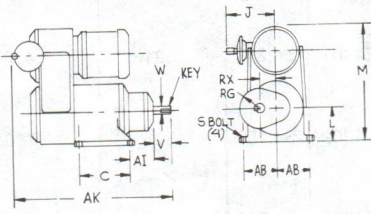







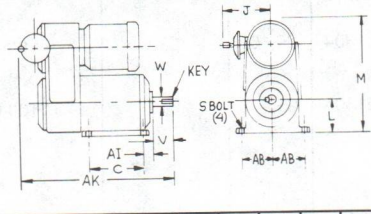
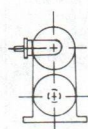
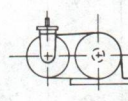
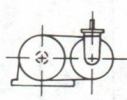
CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
200	3220	644	98	NONE	M20E1500	\$2,759	300	3220/2150
221	1750	350	180	1.84	M20E1501	\$2,986	342	1750/1170
221	950	190	332	2.76	M20E1502	\$3,353	342	950/870
231	420	84	750	6.2	M20E1503	\$3,802	402	420/345
222	280	56	1,125	9.3	M20E1504	\$3,925	362	280/280
232	125	25	2,521	20.9	M20E1505	\$4,416	375	125/103
243	68	13.6	4,634	38.4	M20E1506	\$4,784	590	68/56
243	30	6	10,504	86.5	M20E1507	\$5,785	590	30/27

M1-100

# 5 HP Parallel Dimensions

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
												 100	 111  112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
200	8.50	8.75	5.75	20.19	.50	2.88	1.00	5.69	3.25	26.88	.25 x .25 x 2.06		
												 101	 102  103  113  115  117  119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
221	8.50	8.75	5.75	20.19	.50	2.88	1.38	5.69	3.25	26.88	3.50	2.75	.31 x .31 x 2.00
231	8.50	8.75	5.75	20.19	.50	3.62	1.75	5.69	5.12	29.47	4.12	3.44	.38 x .38 x 2.69
												 105	 121  122
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
222	10.06	8.75	5.75	20.19	.50	3.62	1.75	5.69	1.69	27.62	.38 x .38 x 2.69		
232	12.38	8.75	6.62	22.69	.62	4.38	2.12	6.81	1.44	29.94	.50 x .50 x 3.38		
243	16.12	8.75	8.12	25.69	.75	5.12	2.50	8.25	2.44	35.56	.62 x .62 x 3.94		



# 7½ HP Parallel MAS 51 Drive

## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
VENTILATED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
300	3220	644	147	NONE	M30E1300	\$4,003	416	3220/1750
331	1430	286	331	1.84	M30E1301	\$4,257	521	1430/1170
331	780	156	606	4.13	M30E1302	\$4,459	521	780/520
341	420	84	1,125	6.2	M30E1303	\$4,703	544	420/345
332	190	38	2,488	14.0	M30E1304	\$5,169	580	190/168
342	100	20	4,727	31.4	M30E1305	\$5,473	616	100/68
343	45	9	10,504	57.7	M30E1306	\$6,283	626	45/43

# 7 1/2 HP Parallel Dimensions

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
												 100	 111   112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
300	11.31	10.88	6.62	24.50	.62	3.62	1.25	6.81	3.12	32.94	.25 x .25 x 2.81		
												 101	 102  103  113  115  117  119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
331	11.31	10.88	6.62	24.50	.62	3.62	1.75	6.81	3.12	32.94	4.12	3.44	.38 x .38 x 2.69
341	11.31	10.88	6.62	24.50	.62	4.38	2.12	6.81	7.00	37.56	4.88	4.25	.50 x .50 x 3.38
												 105	 121   122
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
332	12.38	10.88	6.62	24.50	.62	4.38	2.12	6.81	1.44	34.31	.50 x .50 x 3.38		
342	16.12	10.88	8.12	27.38	.75	5.12	2.50	8.25	2.44	38.06	.62 x .62 x 3.94		
343	16.12	10.88	8.12	27.38	.75	5.12	2.50	8.25	2.44	38.06	.62 x .62 x 3.94		



# 10 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
VENTILATED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
300	3220	644	196	NONE	M30E1500	\$5,837	440	3220/2150
331	1430	286	441	1.84	M30E1501	\$5,493	544	1430/1170
331	780	156	808	4.13	M30E1502	\$5,573	544	780/581
341	420	84	1,500	6.2	M30E1503	\$6,283	544	420/345
342	190	38	3,317	14.0	M30E1504	\$6,648	640	190/153
342	100	20	6,302	31.4	M30E1505	\$6,992	640	100/68
353	45	9	14,006	57.7	M30E1506	\$8,281	986	45/37

## 0 HP Parallel Dimensions

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLY
												 100	 111   112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
300	11.31	10.88	6.62	24.50	.62	3.62	1.25	6.81	3.12	32.94	.25 x .25 x 2.81		
												 101	 102   103   113   115   117   119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
331	11.31	10.88	6.62	24.50	.62	3.62	1.75	6.81	3.12	32.94	4.12	3.44	.38 x .38 x 2.69
341	11.31	10.88	6.62	24.50	.62	4.38	2.12	6.81	7.00	37.56	4.88	4.25	.50 x .50 x 3.38
												 105	 121   122
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
342	16.12	10.88	8.12	27.38	.75	5.12	2.50	8.25	2.44	38.06	.62 x .62 x 3.94		
353	18.50	10.88	10.62	32.38	.88	6.12	3.00	10.25	2.19	42.50	.75 x .75 x 4.94		



# 15 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
VENTILATED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
400	3220	644	294	NONE	M40E1100	\$7,935	630	3220/2150
441	1430	286	661	1.84	M40E1101	\$7,539	685	1430/1170
441	780	156	1,212	4.13	M40E1102	\$8,391	685	780/520
451	420	84	2,251	6.2	M40E1103	\$8,614	770	420/345
442	190	38	4,976	14.0	M40E1104	\$9,243	815	190/150
452	100	20	9,454	31.4	M40E1105	\$10,336	1,095	100/68

# 15 HP Parallel Dimensions

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
												 100	 111   112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
400	15.88	13.59	8.12	30.06	.75	4.38	1.50	8.38	3.56	41.69	.38 x .38 x 3.44		
												 101	 102  103  113  115  117  119
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY
441	15.88	13.59	8.12	30.06	.75	4.38	2.12	8.38	3.44	41.56	4.88	4.25	.50 x .50 x 3.38
451	15.88	13.59	8.12	30.06	.75	5.12	2.50	8.38	8.75	47.62	5.88	5.12	.62 x .62 x 3.94
												 105	 121   122
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
442	16.12	13.59	8.12	30.06	.75	5.12	2.50	8.25	2.44	42.19			.62 x .62 x 3.94
452	18.50	13.59	10.62	35.06	.88	6.12	3.00	10.25	2.19	44.75			.75 x .75 x 4.94



# 20 HP Parallel MAS 51 Drive

## ALL STOCK UNITS

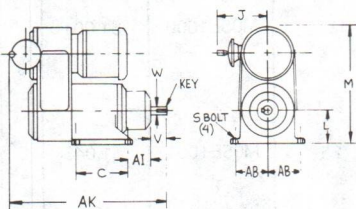

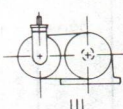
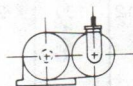
DISCOUNT—D-49

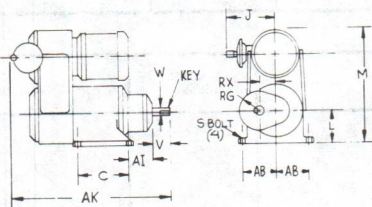
CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
VENTILATED BELT CASE  
1.0 SERVICE FACTOR

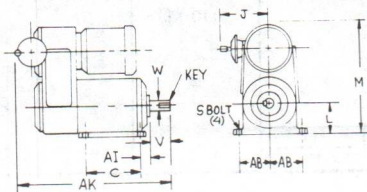
TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)	FOR FULL NAMEPLATE HP RATING, OUTPUT RPM SHOULD BE BETWEEN
	MAX	MIN						
400	3220	644	391	NONE	M40E1300	\$9,323	665	3220/2150
441	1430	286	881	1.84	M40E1301	\$9,080	720	1430/1170
441	780	156	1,616	4.13	M40E1302	\$9,790	720	780/775
451	420	84	3,000	6.2	M40E1303	\$11,005	805	420/345
452	190	38	6,634	14.0	M40E1304	\$11,654	850	190/150
452	100	20	12,605	31.4	M40E1305	\$12,768	1,130	100/80

# 20 HP Parallel Dimensions

DIMENSIONS (INCHES)											STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
											 100	 111   112
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY	
400	15.88	13.59	8.12	30.06	.75	4.38	1.50	8.38	3.56	41.69	.38 x .38 x 3.44	

														
SIZE	C	J	L	M	S	V	W	AB	AI	AK	RG	RX	KEY	
441	15.88	13.59	8.12	30.06	.75	4.38	2.12	8.38	3.44	41.56	4.88	4.25	.50 x .50 x 3.38	
451	15.88	13.59	8.12	30.06	.75	5.12	2.50	8.38	8.75	47.62	5.88	5.12	.62 x .62 x 3.94	

													
SIZE	C	J	L	M	S	V	W	AB	AI	AK	KEY		
452	18.50	13.59	10.62	35.06	.88	6.12	3.00	10.25	2.19	44.75	.75 x .75 x 4.94		



# 1/4 HP Right Angle MAS 51 Drive

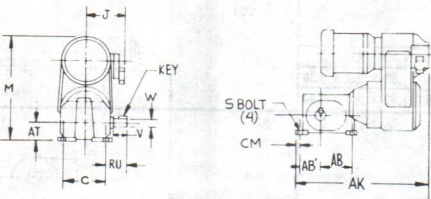
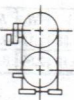



## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX SHIPPING WT. (LBS.)
	MAX	MIN						
05W12	230	46	55	.20	12.7	M05E1000	\$1,001	81
05W12	100	20	111	.18	25	M05E1001	\$1,043	81
05W12	56	11.2	150	.13	50	M05E1002	\$1,168	81

DIMENSIONS (INCHES)													STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
													 170-K1	 171-L1  173-L1  174-K1
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY	
05W12	4.00	5.56	13.12	.31	1.69	.75	2.12	2.12	16.00	2.25	2.00	.50	.19 x .19 x 1.00	

# 1/2 HP Right Angle MAS 51 Drive

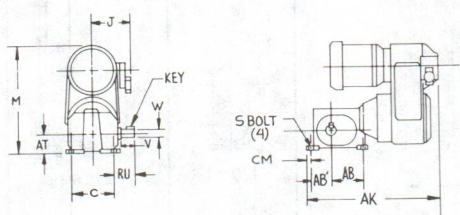
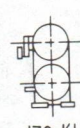



## ALL STOCK UNITS

**DISCOUNT—D-49b**

CONSTANT TORQUE  
C" FLOW VERTICAL/HORIZONTAL  
XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)
	MAX	MIN						
05W12	230	46	110	.40	12.7	M05E1200	\$1,022	83
05W16	100	20	220	.35	30	M05E1201	\$1,063	98
05W16	68	13.6	309	.33	40	M05E1202	\$1,182	98

DIMENSIONS (INCHES)														STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
														 170-K1	 171-L1
															 173-L1
															 174-K1
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY		
05W12	4.00	5.56	13.12	.31	1.69	.75	2.12	2.12	16.00	2.25	2.00	.50	.19 x .19 x 1.00		
05W16	4.50	5.56	13.88	.38	2.00	.88	3.00	3.00	17.60	2.50	2.31	.44	.19 x .19 x 1.25		



# 3/4 HP Right Angle MAS 51 Drive

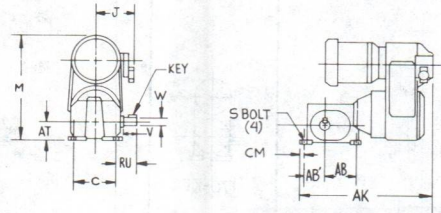
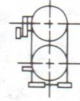



## ALL STOCK UNITS

DISCOUNT—D-496

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)
	MAX	MIN						
05W12	230	46	165	.60	12.7	M05E1400	\$1,063	85
05W16	100	20	335	.53	30	M05E1401	\$1,105	100
05W16	68	13.6	460	.50	40	M05E1402	\$1,390	100

DIMENSIONS (INCHES)													STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
													 170-KI	 171-L1   173-LI   174-KI
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY	
05W12	4.00	5.56	13.12	.31	1.69	.75	2.12	2.12	16.00	2.25	2.00	.50	.19 x .19 x 1.00	
05W16	4.50	5.56	13.88	.38	2.00	.88	3.00	3.00	17.60	2.50	2.31	.44	.19 x .19 x 1.25	

# HP Right Angle MAS 51 Drive

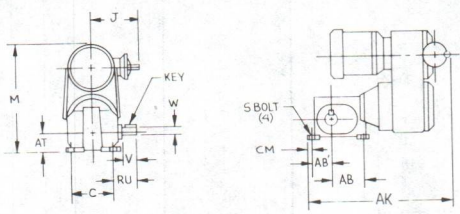
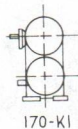



## ALL STOCK UNITS

DISCOUNT—D-49b

CONSTANT TORQUE  
C" FLOW VERTICAL/HORIZONTAL  
XV" ENCLOSED BELT CASE  
0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)
	MAX	MIN						
1W16	230	46	233	.85	12.7	M10E1200	\$1,404	155
1W21	100	20	470	.75	30	M10E1201	\$1,487	185
1W21	68	13.6	655	.71	40	M10E1202	\$1,626	185
1C16	45	9	1140	.81	70	M10E1203	\$1,731	181

DIMENSIONS (INCHES)													STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
													 170-K1	 171-L1   173-L1   174-K1
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY	
1C16	6.50	6.88	16.69	.38	2.50	1.12	5.50	3.50	23.69	3.00	2.88	.50	.25 x .25 x 1.75	
1W16	4.50	6.88	16.19	.31	2.00	.88	3.00	3.00	20.50	2.50	2.31	.44	.19 x .19 x 1.25	
1W21	7.00	6.88	17.69	.38	2.50	1.12	3.50	3.50	21.81	3.38	2.50	.50	.25 x .25 x 1.75	

M1-113



# 1½ HP Right Angle MAS 51 Drive

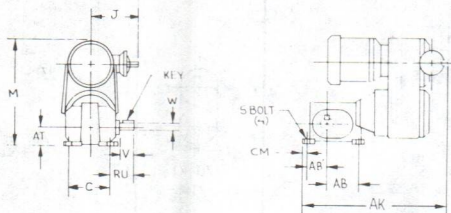
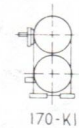



## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING W. (LBS.)
	MAX	MIN						
1W16	230	46	340	1.25	12.7	M10E1400	\$1,612	161
1C16	100	20	825	1.31	30	M10E1401	\$1,835	176
1C16	68	13.6	1195	1.29	40	M10E1402	\$1,918	176
1C16	45	9	1710	1.22	70	M10E1403	\$2,036	176

DIMENSIONS (INCHES)														STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
														 170-K1	 171-L1   173-L1   174-K1
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY		
1C16	6.50	6.88	16.69	.38	2.50	1.12	5.50	3.50	23.69	3.00	2.88	.50	.25 x .25 x 1.75		
1W16	4.50	6.88	16.19	.31	2.00	.88	3.00	3.00	20.50	2.50	2.31	.44	.19 x .19 x 1.25		

M1-114

# HP Right Angle MAS 51 Drive

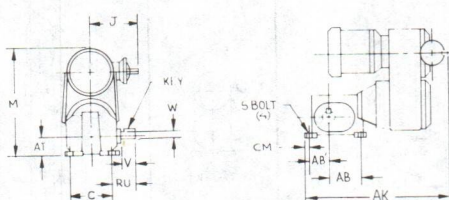
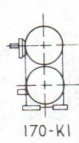



## ALL STOCK UNITS

DISCOUNT—D-49b

CONSTANT TORQUE  
C" FLOW VERTICAL/HORIZONTAL  
KV" ENCLOSED BELT CASE  
0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)
	MAX	MIN						
1W21	230	46	485	1.77	12.7	M10E1600	\$2,085	190
1C16	100	20	1100	1.75	30	M10E1601	\$2,210	186
1C16	68	13.6	1590	1.72	40	M10E1602	\$2,231	186
1C21	45	9	2400	1.72	60	M10E1603	\$2,335	276

DIMENSIONS (INCHES)														STANDARD ASSEMBLY		OPTIONAL ASSEMBLIES	
														 170-K1		 171-L1	
																 173-L1	
																 174-K1	
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY				
1C16	6.50	6.88	16.69	.38	2.50	1.12	5.50	3.50	23.69	3.00	2.88	.50	.25 x .25 x 1.75				
1C21	8.00	6.88	18.31	.50	3.25	1.50	7.00	4.00	25.94	4.00	4.00	.62	.38 x .38 x 1.75				
1W21	7.00	6.88	17.69	.38	2.50	1.12	3.50	3.50	21.81	3.38	2.50	.50	.25 x .25 x 1.75				

M1-115



# 3 HP Right Angle MAS 51 Drive

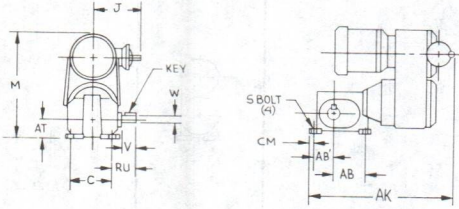




## ALL STOCK UNITS

DISCOUNT—D-49

CONSTANT TORQUE  
"C" FLOW VERTICAL/HORIZONTAL  
"XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)
	MAX	MIN						
2W21	280	56	605	2.7	10	M20E1200	\$3,531	320
2W28	155	31	1015	2.5	20	M20E1202	\$3,225	360
2W28	125	25	1260	2.5	20	M20E1203	\$3,225	360
2W28	100	20	1560	2.48	25	M20E1204	\$3,225	360

DIMENSIONS (INCHES)														STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
														 170-K1	 171-L1  173-L1  174-K1
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY		
2W21	7.00	8.75	20.44	.38	2.50	1.12	3.50	3.50	26.09	3.38	2.50	.50	.25 x .25 x 1.75		
2W28	8.00	8.75	21.94	.50	3.25	1.50	4.00	4.00	28.22	4.00	3.88	.75	.38 x .38 x 1.75		

# 5 HP Right Angle MAS 51 Drive

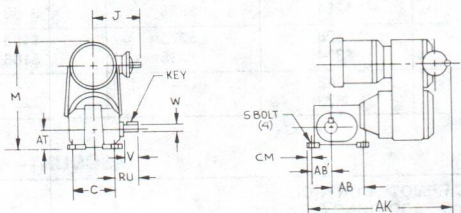
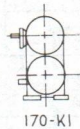



## ALL STOCK UNITS

DISCOUNT—D-49b

CONSTANT TORQUE  
C" FLOW VERTICAL/HORIZONTAL  
XV" ENCLOSED BELT CASE  
1.0 SERVICE FACTOR

TEFC MOTOR:  
1725 RPM, 40°C AMB  
3-PHASE, 60 HZ  
230/460 VOLTS

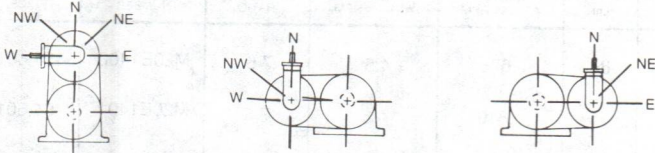
SIZE	OUTPUT RPM		RATED TORQUE (LB.-IN.) AT MAX RPM	NET HP AT MAX RPM	REDUCER RATIO	ORDERING NUMBER	LIST PRICE	APPROX. SHIPPING WT. (LBS.)
	MAX	MIN						
2W28	420	84	675	4.5	7.5	M20E1400	\$4,601	370
2W28	350	70	810	4.5	7.5	M20E1401	\$4,601	370
2C21	125	25	2315	4.6	25	M20E1402	\$3,393	390
2C21	100	20	2900	4.6	25	M20E1403	\$3,393	390
2C28	45	9	6020	4.3	70	M20E1404	\$4,476	490
2C28	37	7.4	7325	4.3	70	M20E1405	\$4,476	490
2C28	30	6	8825	4.2	86	M20E1406	\$4,476	490

DIMENSIONS (INCHES)												STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
												 170-K1	 171-L1   173-L1   174-K1
SIZE	C	J	M	S	V	W	AB	AB'	AK	AT	RU	CM	KEY
2C21	8.00	8.75	21.06	.50	3.25	1.50	7.00	4.00	30.22	4.00	4.00	.62	.38 x .38 x 1.75
2C28	9.00	8.75	23.06	.62	4.56	2.12	9.06	4.94	34.03	5.12	6.06	1.06	.50 x .50 x 3.00
2W28	8.00	8.75	21.94	.50	3.25	1.50	4.00	4.00	28.22	4.00	3.88	.75	.38 x .38 x 1.75



# Modifications/Options

## 48-HOUR SERVICE OPTIONS

<b>ASSEMBLY CHANGE:</b> "C" Flow Vertical to "C" Flow Horizontal (Floor Mount Units) Note: See "Optional Assemblies" on Data Sheets		No Charge
<b>CONTROL POSITION:</b> Handwheel Position Change Examples:		No Charge
		
<b>SPEED RANGE:</b> Speed Stop Changes		No Charge
<b>SHAFT POSITION:</b> K-1 to L-1 Position (Right Angle Units) (Note: See Data Sheets)		No Charge

### DISCOUNT—D-49b

SIZE	MOTOR OPTIONS LIST PRICE ADDITIONS (1)				BISSC DRIVE ENCLOSURE LIST PRICE ADDITIONS (1)
	HP	XP	XT	EASY CLEAN/BISSC	
050	1/4	\$167	\$125	\$117	\$70
	1/2	\$167	\$125	\$117	\$70
	3/4	\$183	\$125	\$117	\$70
100	1	\$183	\$183	\$139	\$95
	1 1/2	\$192	\$197	\$167	\$150
	2	\$409	\$264	\$289	\$150
200	3	\$534	\$328	\$373	\$186
	5	\$539	\$334	\$395	\$186
300	7 1/2	\$901	\$648	—	—
	10	\$930	\$673	—	—

### DISCOUNT—D-49b

ELECTRIC REMOTE CONTROL LIST PRICE ADDITIONS (1)					
SIZE	HEAVY DUTY ERC/WITH PUSHBUTTON STATION	STANDARD TRANSFORMER (IF REQUIRED)	EXTRA PUSHBUTTON STATION	XP ERC WITH XP PUSHBUTTON STATION (2)	XP ERC WITH NON-XP PUSHBUTTON STATION (2)
050	\$459	\$75	\$36 ea.	Not Avail.	Not Avail.
100	\$459	\$75	\$36 ea.	Not Avail.	Not Avail.
200	\$459	\$75	\$36 ea.	\$1287	\$1120
300	\$459	\$75	\$36 ea.	\$1287	\$1120

(1) These prices are to be used when pricing new equipment only.

(2) Standard LH control position only.

Note: For additional information on Motor Options or ERC, refer to page M1-76 and M1-68.

# OPTIONS REQUIRING LONGER THAN 48-HOUR SERVICE

## DISCOUNT—D-49b

<b>DIGITAL TACHS:</b> With Magnetic Pulse Pickup	<b>LIST PRICE ADDITIONS (1)</b>
Field Programmable, 115 Volt AC Powered, Panel Mount	\$577
Specify either "Rate" or "Time-in-Process" indication .....	\$167
For NEMA 4X and 13 Enclosure ADD .....	\$709
For Explosion Proof Enclosure ADD .....	\$384
For Explosion Proof Pickup ADD .....	\$71
For Bench Mount ADD .....	

## DISCOUNT—D-49b

<b>AIRTROL LIST PRICE ADDITIONS (1)</b>		
<b>SIZE</b>	<b>STANDARD AIRTROL</b>	<b>STANDARD AIRTROL W/XP SOLENOID VALVE</b>
100	\$2057	\$2093
200	\$2106	\$2142
300	\$2106	\$2142
400	\$2567	\$2605

## DISCOUNT—D-49b

<b>RAC</b>	<b>LIST PRICE ADDITION</b>
WHEN SOLD AS PART OF A NEW DRIVE	100-200 \$609(1) 300 \$644(1)
FOR RETROFIT ON EXISTING DRIVES	100-200 \$774 300 \$873
PROGRAMMABLE DIGITAL INDICATOR	\$290
ACCESSORIES FOR MULTIPLE DRIVE SYSTEMS	
ISOLATION AMPLIFIER	\$445
RATIO TRANSMITTER	\$580
MASTER CONTROLLER (WITH ISOLATION)	\$565

(1) These prices are to be used when pricing new equipment only.

Note: For additional information on Digital Tachs, Airtrol, or RAC, refer to page M1-62, M1-70, or M1-72.



# Stocking Program

## REEVES MOTO DRIVE AND MAS 51 STOCK PROGRAM

### A. RATINGS

As shown on pages M1-10 through M1-59 and M1-86 through M1-117.

### B. STOCK LOCATION

Lawrenceburg, Kentucky and Hayward, California.

### C. DELIVERY

Stock Ratings will ship within two working days after receipt of order.

Modified Stock Ratings will ship five to ten working days after receipt of order.

MAS 51 units with selected modifications are available for shipment within 48 hours if required. Refer to MAS 51 Modifications/Options.

### D. ORDER ENTRY POINT

Greenville Customer Service order entry for units stocked in Lawrenceburg. Hayward Stock Center for units stocked in Hayward.

### ORDER INSTRUCTIONS

1. Select the Stock Drive desired from selection tables.
2. Determine the stocking location.
3. Enter order for drive at the appropriate order entry point—see item "D" above.
4. When ordering all you need specify is the *ordering number* and what modifications you desire—if any.

## DOMESTIC ORDERS FOR EXPORT

**EXPORT CRATING & PACKING:** For domestic orders requiring crating for export and below deck shipment, add **\$28.00** minimum or 5% of net sales billed, whichever is greater. This price will be subject to the standard conditions of sale; i.e., terms, discount, and F.O.B. point. For special packing per a specific government specification, refer to Reeves Application Section.

**EXPORT SHIPPING:** Refer to Reliance Sales Office.

## DATA DISTRIBUTION

- Certified Dimension Sheets
- Instruction Manuals
- Performance Data
- Wiring Diagrams

Each customer is entitled at no additional cost, upon request at order entry, to five each of the above per order or one each per unit on the order, depending upon whichever is greater. For quantities greater than listed above, there will be a charge of **\$1.00** net per copy of each.

## REEVES MOTO DRIVE (1), (2), (5), (6) PARALLEL GEARING

PARALLEL GEARING													STOCK (4) LOCATIONS	
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	
			Max.	Min.										
1/4	050	None	4850	485	TEFC	2	W	100	M05C1028	887	D-49a	68	*	*
	051	1.84:1	2640	264	TEFC	2	W	101	M05C1029	887	D-49a	76	*	*
	051	4.13:1	1170	117	TEFC	2	W	101	M05C1030	1115	D-49a	76	*	*
	051	6.2:1	780	78	TEFC	2	W	101	M05C1004	1115	D-49a	78	*	*
	052	9.3:1	520	52	TEFC	2	W	105	M05C1031	1154	D-49a	88	*	*
	052	31.4:1	154	15.4	TEFC	2	W	105	M05C1032	1276	D-49a	86	*	*
	053	38.4:1	126	12.6	TEFC	2	W	105	M05C1033	1298	D-49a	95	*	*
	053	57.0:1	84	8.4	TEFC	2	W	105	M05C1013	1359	D-49a	95	A	A
	113	111.0:1	42	4.2	TEFC	2	W	105	M10C1002	1560	D-49a	176	A	A
	113	145.0:1	32.1	3.21	TEFC	2	W	105	M10C1003	1674	D-49a	176	A	A
1/2	050	None	4850	485	TEFC	2	W	100	M05C1500	990	D-49a	70	*	*
	051	1.84:1	2640	264	TEFC	2	W	101	M05C1545	990	D-49a	78	*	*
	051	2.76:1	1760	176	TEFC	2	W	101	M05C1540	990	D-49a	78	C	C
	051	4.13:1	1170	117	TEFC	2	W	101	M05C1543	1273	D-49a	78	*	*
	051	6.2:1	780	78	TEFC	2	W	101	M05C1513	1273	D-49a	78	*	*
	052	9.3:1	520	52	TEFC	2	W	105	M05C1505	1312	D-49a	88	*	*
	052	14.0:1	346	34.6	TEFC	2	W	105	M05C1506	1359	D-49a	88	*	*
	052	20.9:1	232	23.2	TEFC	2	W	105	M05C1508	1412	D-49a	88	C	C
	052	25.6:1	189	18.9	TEFC	2	W	105	M05C1509	1437	D-49a	88	C	C
	052	31.4:1	154	15.4	TEFC	2	W	105	M05C1544	1468	D-49a	88	*	*
3/4	053	38.4:1	126	12.6	TEFC	2	W	105	M05C1515	1496	D-49a	95	*	*
	053	47.0:1	103	10.3	TEFC	2	W	105	M05C1511	1535	D-49a	95	C	C
	113	71.0:1	65.6	6.56	TEFC	2	W	105	M10C1004	1651	D-49a	176	C	C
	100	None	4660	466	TEFC	2	W	100	M10C1246	1087	D-49a	151	*	*
	111	1.76:1	2650	265	TEFC	2	W	101	M10C1255	1087	D-49a	161	*	*
	111	2.4:1	1945	194.5	TEFC	2	W	101	M10C1247	1087	D-49a	161	*	*
	111	2.7:1	1715	171.5	TEFC	2	W	101	M10C1201	1087	D-49a	161	B	B
	111	3.9:1	1185	118.5	TEFC	2	W	101	M10C1215	1426	D-49a	161	*	*
	111	5.25:1	890	89	TEFC	2	W	101	M10C1244	1426	D-49a	161	*	*
	111	6.1:1	764	76.4	TEFC	2	W	101	M10C1256	1426	D-49a	161	*	*
3/4	112	8.4:1	555	55.5	TEFC	2	W	105	M10C1248	1479	D-49a	171	C	C
	112	11.0:1	423	42.3	TEFC	2	W	105	M10C1249	1512	D-49a	171	B	B
	112	14.4:1	324	32.4	TEFC	2	W	105	M10C1207	1535	D-49a	171	*	*
	112	21.2:1	220	22	TEFC	2	W	105	M10C1209	1587	D-49a	171	*	*
	112	23.4:1	199	19.9	TEFC	2	W	105	M10C1212	1618	D-49a	171	B	B
	112	27.8:1	168	16.8	TEFC	2	W	105	M10C1213	1649	D-49a	171	C	C
	112	30.7:1	152	15.2	TEFC	2	W	105	M10C1210	1649	D-49a	171	C	C
	113	44.0:1	106	10.6	TEFC	2	W	105	M10C1214	1732	D-49a	176	D	D
	123	130:1	35.8	3.58	TEFC	2	W	105	M10C1257	2096	D-49a	186	*	*

(1) For available modifications/options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3)

(4) An asterisk \* denotes that this is a re-op unit.

Check delivery when ordering.

(5) Also check the MAS 51 Drive stock ratings, pp M1-127 through M1-130.

(6) All motors totally enclosed, all drives output rated.

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50



## REEVES MOTO DRIVE PARALLEL GEARING

(1), (2), (5), (6)

HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	VOLT S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	STOCK (4) LOCATIONS	
			Max.	Min.									LAWRENCEBURG	HAYWARD
1	100	None	4200	466	TEFC	2	W	100	M10C1539	1251	D-49a	151	*	*
	111	1.76:1	2386	265	TEFC	2	W	101	M10C1546	1251	D-49a	161	*	*
	111	2.4:1	1750	194	TEFC	2	W	101	M10C1540	1251	D-49a	161	*	*
	111	3.93:1	1069	118	TEFC	2	W	101	M10C1541	1721	D-49a	161	*	*
	111	5.25:1	800	88.8	TEFC	2	W	101	M10C1501	1721	D-49a	161	C	C
	111	6.1:1	688	76.4	TEFC	2	W	101	M10C1547	1740	D-49a	161	*	*
	112	9.7:1	433	48	TEFC	2	W	105	M10C1513	1793	D-49a	171	C	C
	112	12.7:1	331	36.7	TEFC	2	W	105	M10C1503	1824	D-49a	171	C	C
	112	14.4:1	292	32.4	TEFC	2	W	105	M10C1548	1935	D-49a	171	*	*
	112	17.8:1	236	26.2	TEFC	2	W	105	M10C1504	1982	D-49a	171	C	C
	112	21.2:1	198	22	TEFC	2	W	105	M10C1515	2029	D-49a	171	*	*
	112	23.4:1	179	19.9	TEFC	2	W	105	M10C1542	2029	D-49a	171	B	B
	112	30.7:1	137	15.2	TEFC	2	W	105	M10C1516	2152	D-49a	171	D	D
1 1/2	123	38.4:1	109	12.1	TEFC	2	W	105	M10C1250	2218	D-49a	199	*	*
	123	57.7:1	72.8	8.1	TEFC	2	W	105	M10C1507	2338	D-49a	199	C	C
	133	130:1	32.3	3.58	TEFC	2	W	105	M10C1549	2761	D-49a	245	*	*
	100	None	4200	466	TEFC	2	W	100	M10C1550	1457	D-49a	151	*	*
	111	2.2:1	1944	216	TEFC	2	W	101	M10C1543	1662	D-49a	161	B	B
	111	2.4:1	1750	194	TEFC	2	W	101	M10C1551	1662	D-49a	161	B	B
	111	3.93:1	1069	118	TEFC	2	W	101	M10C1554	1826	D-49a	161	*	*
	121	5.1:1	832	92	TEFC	2	W	101	M10C1810	1999	D-49a	178	B	B
	121	6.2:1	678	75	TEFC	2	W	101	M10C1555	2038	D-49a	178	*	*
	122	9.3:1	452	50	TEFC	2	W	105	M10C1805	2121	D-49a	196	D	D
	122	11.4:1	368	41	TEFC	2	W	105	M10C1806	2146	D-49a	196	B	B
	122	14.0:1	300	33.3	TEFC	2	W	105	M10C1809	2346	D-49a	196	*	*
	122	20.9:1	201	22.3	TEFC	2	W	105	M10C1801	2405	D-49a	196	*	*
2	123	38.4:1	109	12.1	TEFC	2	W	105	M10C1807	2624	D-49a	199	*	*
	123	70.6:1	60	6.6	TEFC	2	W	105	M10C1808	2880	D-49a	199	C	C
	133	130:1	32.3	3.58	TEFC	2	W	105	M10C1556	3286	D-49a	259	*	*
	200	None	4200	420	TEFC	2	W	100	M20C1000	1974	D-49a	290	*	*
	221	1.84:1	2280	228	TEFC	2	W	101	M20C1023	1974	D-49a	332	*	*
	221	2.25:1	1870	187	TEFC	2	W	101	M20C1001	1974	D-49a	332	C	C
	221	2.76:1	1520	152	TEFC	2	W	101	M20C1024	2041	D-49a	332	*	*
	221	4.13:1	1020	102	TEFC	2	W	101	M20C1002	2213	D-49a	332	B	B
	221	5.1:1	830	83	TEFC	2	W	101	M20C1013	2608	D-49a	332	*	*
	221	6.2:1	680	68	TEFC	2	W	101	M20C1003	2644	D-49a	332	C	C
	222	9.3:1	450	45	TEFC	2	W	105	M20C1010	2717	D-49a	352	*	*
	222	14.0:1	300	30	TEFC	2	W	105	M20C1004	2919	D-49a	352	*	*
	222	17.1:1	245	24.5	TEFC	2	W	105	M20C1005	2991	D-49a	352	B	B
	222	20.9:1	200	20	TEFC	2	W	105	M20C1011	3066	D-49a	352	*	*
	222	25.6:1	164	16.4	TEFC	2	W	105	M20C1008	3144	D-49a	352	B	B
	222	31.4:1	134	13.4	TEFC	2	W	105	M20C1009	3233	D-49a	352	C	C
	233	38.4:1	109	10.9	TEFC	2	W	105	M20C1022	3328	D-49a	409	*	*
	233	47.1:1	89.2	8.92	TEFC	2	W	105	M20C1012	3411	D-49a	409	*	*
	243	159.0:1	26.5	2.65	TEFC	2	W	105	M20C1014	4270	D-49a	570	B	B

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3)

(4) An asterisk \* denotes that this is a re-op unit.

Check delivery when ordering.

(5) Also check the MAS S1 Drive stock ratings, pp M1-127 through M1-130.

(6) All motors totally enclosed, all drives output rated.

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115 230	9	208 220 440
2	230 460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200 400
7	220 440 762	15	115 230-50
8	208	16	220 380-50

# REEVES MOTO DRIVE (1), (2), (5), (6)

## PARALLEL GEARING

HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	VOLTS (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	STOCK (4) LOCATIONS	
			Max.	Min.									LAWRENCEBURG	HAYWARD
3	200	None	4200	420	TEFC	2	W	100	M20C1500	2900	D-49a	290	*	*
	221	1.84:1	2280	228	TEFC	2	W	101	M20C1520	2900	D-49a	332	*	*
	221	2.25:1	1870	187	TEFC	2	W	101	M20C1514	2900	D-49a	332	*	*
	221	2.8:1	1520	152	TEFC	2	W	101	M20C1508	3002	D-49a	332	*	*
	221	5.1:1	830	83	TEFC	2	W	101	M20C1509	3645	D-49a	332	C	C
	221	6.2:1	680	68	TEFC	2	W	101	M20C1515	3692	D-49a	332	*	*
	222	9.3:1	450	45	TEFC	2	W	105	M20C1510	3786	D-49a	353	*	*
	222	14.0:1	300	30	TEFC	2	W	105	M20C1511	4023	D-49a	352	C	C
	222	20.9:1	200	20	TEFC	2	W	105	M20C1505	4181	D-49a	352	A	A
	232	31.4:1	134	13.4	TEFC	2	W	105	M20C1517	4387	D-49a	363	B	B
	233	38.4:1	109	10.9	TEFC	2	W	105	M20C1518	4512	D-49a	409	*	*
	233	47.0:1	89.2	8.92	TEFC	2	W	105	M20C1512	4620	D-49a	409	B	B
	233	57.7:1	72.8	7.28	TEFC	2	W	105	M20C1513	4757	D-49a	409	C	C
	243	86.5:1	48.5	4.85	TEFC	2	W	105	M20C1519	5076	D-49a	580	*	*
5	353	195.0:1	21.6	2.16	TEFC	2	W	105	M30C1010	6242	D-49a	906	A	A
	300	None	4200	420	TEFC	2	W	100	M30C1000	3857	D-49a	416	*	*
	331	1.84:1	2280	228	TEFC	2	W	101	M30C1003	3857	D-49a	521	*	*
	331	2.2:1	1870	187	TEFC	2	W	101	M30C1009	3857	D-49a	521	B	B
	331	2.8:1	1520	152	TEFC	2	W	101	M30C1004	4078	D-49a	521	*	*
	331	4.13:1	1020	102	TEFC	2	W	101	M30C1018	4360	D-49a	521	*	*
	331	6.2:1	680	68	TEFC	2	W	101	M30C1005	4847	D-49a	521	C	C
	332	9.3:1	450	45	TEFC	2	W	105	M30C1006	4988	D-49a	580	D	D
	332	11.4:1	370	37	TEFC	2	W	105	M30C1007	5051	D-49a	580	C	C
	332	14.0:1	300	30	TEFC	2	W	105	M30C1001	5304	D-49a	580	C	C
	332	25.6:1	164	16.4	TEFC	2	W	105	M30C1008	5641	D-49a	580	B	B
	332	31.4:1	134	13.4	TEFC	2	W	105	M30C1002	5770	D-49a	580	C	C
	343	57.7:1	72.8	7.28	TEFC	2	W	105	M30C1019	6271	D-49a	616	*	*
	353	106.0:1	40	4	TEFC	2	W	105	M30C1011	6988	D-49a	906	A	A
7 1/2	300	None	4200	420	TEFC	2	W	100	M30C1012	5618	D-49a	416	*	*
	331	1.84:1	2280	228	TEFC	2	W	101	M30C1020	5333	D-49a	521	*	*
	331	2.8:1	1520	152	TEFC	2	W	101	M30C1013	5537	D-49a	521	B	B
	331	4.13:1	1020	102	TEFC	2	W	101	M30C1021	5888	D-49a	521	*	*
	331	5.1:1	830	83	TEFC	2	W	101	M30C1014	6470	D-49a	521	B	B
	341	6.2:1	680	68	TEFC	2	W	101	M30C1022	6545	D-49a	544	*	*
	332	9.3:1	450	45	TEFC	2	W	105	M30C1016	6706	D-49a	580	*	*
	342	20.9:1	200	20	TEFC	2	W	105	M30C1015	7348	D-49a	616	A	A
	342	31.4:1	134	13.4	TEFC	2	W	105	M30C1017	7658	D-49a	616	*	*
	353	57.7:1	72.8	7.28	TEFC	2	W	105	M30C1023	8280	D-49a	925	*	*

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3)

(4) An asterisk \* denotes that this is a re-op unit. Check delivery when ordering.

(5) Also check the MAS 51 Drive stock ratings, pp M1-127 through M1-130.

(6) All motors totally enclosed, all drives output rated.

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50



# Stock Tables

## REEVES MOTO DRIVE PARALLEL GEARING (1), (2), (5), (7)

													STOCK (4) LOCATIONS	
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
10	400	None	3940	500	TEFC	2	W	100	M40C1003	7445	D-49a	750	*	*
	441	1.84:1	2150	273	TEFC	2	W	101	M40C1504	7022	D-49a	800	*	*
	441	2.8:1	1430	182	TEFC	2	W	101	M40C1004	7273	D-49a	800	A	A
	441	4.13:1	950	121	TEFC	2	W	101	M40C1505	7638	D-49a	800	*	*
	441	6.2:1	640	81.2	TEFC	2	W	101	M40C1005	8430	D-49a	800	A	A
	442	14.0:1	280	36	TEFC	2	W	105	M40C1506	9074	D-49a	925	*	*
15	442	20.9:1	190	24	TEFC	2	W	105	M40C1002	9385	D-49a	925	A	A
	400	None	3940	500	TEFC	2	W	100	M40C1500	9497	D-49a	750	*	*
	441	1.84:1	2150	273	TEFC	2	W	101	M40C1507	8956	D-49a	800	*	*
	441	2.8:1	1430	182	TEFC	2	W	101	M40C1501	9345	D-49a	800	*	*
	441	4.13:1	950	121	TEFC	2	W	101	M40C1508	9759	D-49a	800	*	*
	441	5.1:1	780	99	TEFC	2	W	101	M40C1502	10,594	D-49a	800	A	A
20	442	14.0:1	280	36	TEFC	2	W	105	M40C1509	11,385	D-49a	925	*	*
	442	20.9:1	190	24	TEFC	2	W	105	M40C1503	11,762	D-49a	925	B	B
	452	31.4:1	125	15.9	TEFC	2	W	105	M40C1510	12,240	D-49a	1095	*	*
	500	None	2600	400	TEFC	2	W	100 (6)	M50C1000	10,499	D-49a	1410	A	A
	551	1.8:1	1445	217	TEFC	2	W	101 (6)	M50C1001	11,158	D-49a	1555	A	A
	551	4.1:1	643	96.8	TEFC	2	W	101 (6)	M50C1002	12,675	D-49a	1555	A	A
	552	14.0:1	190	28.6	TEFC	2	W	105	M50C1003	13,901	D-49a	1700	A	A

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3) **VOLTAGE CODE**

CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50

(4) An asterisk \* denotes that this is a re-op unit. Check delivery when ordering.

(5) Also check the MAS 51 Drive stock ratings, pp M1-127 through M1-130.

(6) These drives are furnished with 1150 RPM motors.

(7) All motors totally enclosed, all drives output rated.

## For Food Processing, Chemical Processing and Waste Water Treatment Industries

### Parallel Gearing

### All Motors Easy Clean Fan Cooled

													STOCK LOCATIONS	
HP #	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
1/2	051	3.4:1	1440	144	E-ZFC	2	W	101	M05H1001	1578	D-49a	678	A	
3/4	113	44.0:1	106	10.6	E-ZFC	2	W	105	M10H1001	2036	D-49a	176	A	
1	112	9.7:1	433	48	E-ZFC	2	W	105	M10H1002	2059	D-49a	171	A	
1 1/2	111	3.93:1	1069	118	E-ZFC	2	W	101	M10H1003	2181	D-49a	161	A	
2	221	6.2:1	680	68	E-ZFC	2	W	101	M20H1001	3121	D-49a	332	A	
3	222	7.6:1	550	55	E-ZFC	2	W	105	M20H1002	4163	D-49a	341	A	
5	332	9.3:1	450	45	E-ZFC	2	W	105	M30H1001	5766	D-49a	580	A	

# REEVES MOTO DRIVE (1), (2), (5), (7) RIGHT ANGLE GEARING

RIGHT ANGLE GEARING												STOCK (4) LOCATIONS		
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
1/4	05W12	12.7:1	383	38.3	TEFC	2	W	170-K1	M05C1027	1176	D-49a	84	*	*
	05W12	25:1	194	19.4	TEFC	2	W	170-K1	M05C1532	1176	D-49a	84	A	A
	05W12	50:1	97	9.7	TEFC	2	W	170-K1	M05C1026	1176	D-49a	84	A	A
	05W16	60:1	81	8.1	TEFC	2	W	170-K1	M05C1538	1243	D-49a	100	A	A
	05C12	101:1	48	4.8	TEFC	2	W	170-K1	M05C1534	1357	D-49a	98	A	A
1/2	05W12	12.7:1	383	38.3	TEFC	2	W	170-K1	M05C1541	1332	D-49a	84	*	*
	05W12	15:1	323	32.3	TEFC	2	W	170-K1	M05C1520	1332	D-49a	84	B	B
	05W12	18:1	270	27	TEFC	2	W	170-K1	M05C1521	1332	D-49a	84	A	A
	05W12	25:1	194	19.4	TEFC	2	W	170-K1	M05C1523	1332	D-49a	84	C	C
	05W16	30:1	162	16.2	TEFC	2	W	170-K1	M05C1539	1398	D-49a	100	*	*
	05W16	40:1	121	12.1	TEFC	2	W	170-K1	M05C1542	1398	D-49a	100	*	*
	05W16	50:1	97	9.7	TEFC	2	W	170-K1	M05C1526	1398	D-49a	100	D	D
	05C12	70:1	69.2	6.92	TEFC	2	W	170-K1	M05C1535	1529	D-49a	98	C	C
	05C12	101:1	48	4.8	TEFC	2	W	170-K1	M05C1529	1529	D-49a	98	C	C
3/4	1W16	10:1	466	46.6	TEFC	2	W	170-K1	M10C1531	1507	D-49a	151	*	*
	1W16	12.7:1	368	36.8	TEFC	2	W	170-K1	M10C1232	1507	D-49a	151	*	*
	1W16	20:1	233	23.3	TEFC	2	W	170-K1	M10C1251	1507	D-49a	151	*	*
	1W16	25:1	186	18.6	TEFC	2	W	170-K1	M10C1238	1507	D-49a	151	C	C
	1W16	30:1	155	15.5	TEFC	2	W	170-K1	M10C1227	1507	D-49a	151	C	C
	1W21	40:1	117	11.7	TEFC	2	W	170-K1	M10C1254	1621	D-49a	151	*	*
	1W21	50:1	93.2	9.32	TEFC	2	W	170-K1	M10C1235	1621	D-49a	181	A	A
	1W21	60:1	77.7	7.77	TEFC	2	W	170-K1	M10C1236	1621	D-49a	181	A	A
	1C16	101:1	46.1	4.61	TEFC	2	W	170-K1	M10C1237	1754	D-49a	176	C	C
	1C21	162:1	28.8	2.88	TEFC	2	W	170-K1 (6)	M10C1231	2155	D-49a	226	B	B
1	1W16	10:1	420	46.6	TEFC	2	W	170-K1	M10C1532	1679	D-49a	151	C	C
	1W16	12.7:1	331	36.8	TEFC	2	W	170-K1	M10C1552	1679	D-49a	151	*	*
	1W16	18:1	233	25.9	TEFC	2	W	170-K1	M10C1519	1679	D-49a	151	C	C
	1W16	20:1	210	23.3	TEFC	2	W	170-K1	M10C1523	1679	D-49a	151	C	C
	1W16	25:1	168	18.6	TEFC	2	W	170-K1	M10C1242	1679	D-49a	151	*	*
	1W21	30:1	140	15.5	TEFC	2	W	170-K1	M10C1252	1813	D-49a	181	B	B
	1W21	40:1	105	11.7	TEFC	2	W	170-K1	M10C1520	1813	D-49a	181	D	D
	1C16	50:1	84	9.32	TEFC	2	W	170-K1	M10C1521	1949	D-49a	176	*	*
	1C16	70:1	60	6.66	TEFC	2	W	170-K1	M10C1536	1949	D-49a	176	*	*

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3)

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50

(4) An asterisk \* denotes that this is a re-op unit.

Check delivery when ordering.

(5) Also check the MAS 51 Drive stock ratings, pp M1-127 through M1-130.

(6) Rating cannot be modified to horizontal assembly.

(7) All motors totally enclosed, all drives output rated.



# Stock Tables

## REEVES MOTO DRIVE (1), (2), (5), (7) RIGHT ANGLE GEARING

													STOCK (4) LOCATIONS	
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER (1)	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
1 1/2	1W16	12.7:1	331	36.8	TEFC	2	W	170-K1	M10C1553	1918	D-49a	181	*	*
	1W21	18:1	233	25.9	TEFC	2	W	170-K1	M10C1253	2052	D-49a	181	C	C
	1W21	20:1	210	23.3	TEFC	2	W	170-K1	M10C1534	2052	D-49a	181	C	C
	1W21	25:1	168	18.6	TEFC	2	W	170-K1	M10C1537	2052	D-49a	181	B	B
	1C16	30:1	140	15.5	TEFC	2	W	170-K1	M10C1545	2188	D-49a	176	B	B
	1C16	40:1	105	11.7	TEFC	2	W	170-K1	M10C1544	2188	D-49a	176	C	C
	1C16	50:1	84	9.32	TEFC	2	W	170-K1	M10C1535	2188	D-49a	176	C	C
	1C16	70:1	60	6.66	TEFC	2	W	170-K1	M10C1538	2188	D-49a	176	D	D
2	1C21	144:1	29.2	3.24	TEFC	2	W	170-K1 (6)	M10C1529	2619	D-49a	266	C	C
	2W21	10:1	420	42	TEFC	2	W	170-K1	M20C1020	2574	D-49a	320	*	*
	2W21	18:1	233	23.3	TEFC	2	W	170-K1	M20C1015	2574	D-49a	320	C	C
	2W28	25:1	168	16.8	TEFC	2	W	170-K1	M20C1021	2941	D-49a	350	*	*
3	2C21	50:1	84	8.4	TEFC	2	W	170-K1	M20C1016	3139	D-49a	370	C	C
	2W21	10:1	420	42	TEFC	2	W	170-K1	M20C1205	3600	D-49a	320	*	*
	2W28	18:1	233	23.3	TEFC	2	W	170-K1	M20C1017	3953	D-49a	360	A	A
	2W28	20:1	210	21	TEFC	2	W	170-K1	M20C1206	3953	D-49a	360	*	*
	2W28	25:1	168	16.8	TEFC	2	W	170-K1	M20C1207	3953	D-49a	360	*	*
	2C21	36:1	117	11.7	TEFC	2	W	170-K1	M20C1018	4067	D-49a	370	A	A
	2C28	70:1	60	6	TEFC	2	W	170-K1 (6)	M20C1019	4501	D-49a	470	A	A
	2C28	86:1	48.8	4.88	TEFC	2	W	170-K1 (6)	M20C1208	4501	D-49a	470	*	*

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3) **VOLTAGE CODE**

CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50

(4) An asterisk \* denotes that this is a re-op unit.

Check delivery when ordering.

(5) Also check the MAS 51 Drive stock ratings, pp M1-127 through M1-130.

(6) Rating cannot be modified to horizontal assembly.

(7) All motors totally enclosed, all drives output rated.

## For Food Processing, Chemical Processing and Waste Water Treatment Industries

### Right Angle Gearing

### All Motors Easy Clean Fan Cooled

													STOCK LOCATIONS	
HP #	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
1/2	1C21	2880:1	16.2	1.62	EZFC	2	W	170-K1	M10H1004	2000	D-49a	151	A	
3/4	1W21	40.0:1	117	11.7	EZFC	2	W	170-K1	M10H1005	1925	D-49a	151	A	
1	1W21	40.0:1	105	11.7	EZFC	2	W	170-K1	M10H1006	2139	D-49a	181	A	
1 1/2	1C16	70.0:1	60	6.66	EZFC	2	W	170-K1	M10H1007	2542	D-49a	176	A	
2	2C21	50.0:1	84	8.4	EZFC	2	W	170-K1	M20H1003	3615	D-49a	370	A	

# REEVES MAS 51 DRIVE (1), (2), (5), (6) PARALLEL GEARING

PARALLEL GEARING													STOCK (4) LOCATIONS	
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
1/4	050	None	3220	644	TEFC	2	W	100	M05E1100	817	D-49b	68	*	*
	051	1.84:1	1750	350	TEFC	2	W	101	M05E1101	838	D-49b	76	*	*
	051	4.13:1	780	156	TEFC	2	W	101	M05E1102	940	D-49b	76	*	*
	051	6.2:1	520	104	TEFC	2	W	101	M05E1103	981	D-49b	76	*	*
	052	9.3:1	350	70	TEFC	2	W	105	M05E1104	1030	D-49b	86	*	*
	052	14.0:1	190	38	TEFC	2	W	105	M05E1105	1063	D-49b	86	*	*
	052	31.4:1	100	20	TEFC	2	W	105	M05E1106	1120	D-49b	86	-	*
	053	38.4:1	68	13.6	TEFC	2	W	105	M05E1107	1247	D-49b	93	*	*
1/2	050	None	3220	644	TEFC	2	W	100	M05E1300	840	D-49b	70	*	*
	051	1.84:1	1750	350	TEFC	2	W	101	M05E1301	860	D-49b	78	*	*
	051	4.13:1	780	156	TEFC	2	W	101	M05E1302	949	D-49b	78	*	*
	051	6.2:1	520	104	TEFC	2	W	101	M05E1303	1012	D-49b	78	*	*
	052	9.3:1	350	70	TEFC	2	W	105	M05E1304	1083	D-49b	88	*	*
	052	14.0:1	190	38	TEFC	2	W	105	M05E1305	1134	D-49b	88	*	*
	052	31.4:1	100	20	TEFC	2	W	105	M05E1306	1237	D-49b	88	*	*
	053	38.4:1	68	13.6	TEFC	2	W	105	M05E1307	1298	D-49b	95	*	*
3/4	050	None	3220	644	TEFC	2	W	100	M05E1500	862	D-49b	72	C	C
	051	1.84:1	1750	350	TEFC	2	W	101	M05E1501	883	D-49b	80	C	C
	051	4.13:1	780	156	TEFC	2	W	101	M05E1502	1063	D-49b	80	C	C
	051	6.2:1	520	104	TEFC	2	W	101	M05E1503	1165	D-49b	80	B	B
	052	9.3:1	350	70	TEFC	2	W	105	M05E1504	1186	D-49b	90	B	B
	052	14.0:1	190	38	TEFC	2	W	105	M05E1505	1308	D-49b	90	C	C
	052	31.4:1	100	20	TEFC	2	W	105	M05E1506	1350	D-49b	90	C	C
	053	38.4:1	68	13.6	TEFC	2	W	105	M05E1507	1421	D-49b	97	C	C
1	100	None	3220	644	TEFC	2	W	100	M10E1300	1113	D-49b	148	*	*
	111	1.76:1	1760	350	TEFC	2	W	101	M10E1301	1134	D-49b	158	*	*
	111	3.93:1	780	156	TEFC	2	W	101	M10E1302	1359	D-49b	158	*	*
	111	6.1:1	520	104	TEFC	2	W	101	M10E1303	1398	D-49b	158	C	C
	111	6.1:1	420	84	TEFC	2	W	101	M10E1304	1493	D-49b	158	*	*
	112	14.4:1	230	46	TEFC	2	W	105	M10E1305	1615	D-49b	168	*	*
	112	21.2:1	125	25	TEFC	2	W	105	M10E1306	1626	D-49b	168	C	C
	123	38.4:1	68	13.6	TEFC	2	W	105	M10E1307	1799	D-49b	196	*	*
1 1/2	123	130.0:1	25	5	TEFC	2	W	105	M10E1308	1963	D-49b	196	B	B
	100	None	3220	644	TEFC	2	W	100	M10E1500	1165	D-49b	151	*	*
	111	1.76:1	1750	350	TEFC	2	W	101	M10E1501	1369	D-49b	161	*	*
	111	3.93:1	780	156	TEFC	2	W	101	M10E1502	1554	D-49b	161	C	C
	121	6.2:1	520	104	TEFC	2	W	101	M10E1503	1728	D-49b	178	*	*
	121	6.2:1	420	84	TEFC	2	W	101	M10E1504	1788	D-49b	178	*	*
	112	14.4:1	230	46	TEFC	2	W	105	M10E1505	1800	D-49b	171	C	C
	122	20.9:1	125	25	TEFC	2	W	105	M10E1506	1881	D-49b	191	*	*
1 3/4	123	38.4:1	68	13.6	TEFC	2	W	105	M10E1507	2106	D-49b	199	*	*
	133	130.0:1	25	5	TEFC	2	W	105	M10E1508	2371	D-49b	259	*	*

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230/50
8	208	16	220/380/50

(4) An asterisk \* denotes that this is a re-op unit.

Check delivery when ordering.

(5) Also check the Moto Drive stock ratings, pp M1-121 through M1-125.

(6) All motors totally enclosed, all drives output rated.



# Stock Tables

## REEVES MAS 51 DRIVE PARALLEL GEARING (1), (2), (5), (6)

PARALLEL GEARING														STOCK (4) LOCATIONS	
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V OLTS (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD	
			Max.	Min.											
2	100	None	3220	644	TEFC	2	W	100	M10E1700	1350	D-49b	156	C	C	
	111	1.76:1	1750	350	TEFC	2	W	101	M10E1701	1585	D-49b	166	C	C	
	121	4.13:1	780	156	TEFC	2	W	101	M10E1702	1758	D-49b	182	B	B	
	121	6.2:1	520	104	TEFC	2	W	101	M10E1703	1921	D-49b	182	C	C	
	121	6.2:1	420	84	TEFC	2	W	101	M10E1704	2003	D-49b	182	*	*	
	122	14.0:1	230	46	TEFC	2	W	105	M10E1705	2085	D-49b	196	C	C	
	122	20.9:1	125	25	TEFC	2	W	105	M10E1706	2127	D-49b	196	C	C	
	123	38.4:1	68	13.6	TEFC	2	W	105	M10E1707	2249	D-49b	204	C	C	
	133	130.0:1	25	5	TEFC	2	W	105	M10E1708	2412	D-49b	264	C	C	
3	200	None	3220	644	TEFC	2	W	100	M20E1300	1697	D-49b	290	*	*	
	221	1.84:1	1750	350	TEFC	2	W	101	M20E1301	1840	D-49b	332	*	*	
	221	2.76:1	950	190	TEFC	2	W	101	M20E1302	2289	D-49b	332	*	*	
	221	6.2:1	420	84	TEFC	2	W	101	M20E1303	2635	D-49b	332	*	*	
	222	9.3:1	280	56	TEFC	2	W	105	M20E1304	2738	D-49b	352	*	*	
	222	20.9:1	125	25	TEFC	2	W	105	M20E1305	2883	D-49b	352	*	*	
	233	38.4:1	68	13.6	TEFC	2	W	105	M20E1306	3087	D-49b	409	B	B	
5	243	86.5:1	30	6	TEFC	2	W	105	M20E1307	3802	D-49b	580	*	*	
	200	None	3220	644	TEFC	2	W	100	M20E1500	2759	D-49b	300	C	C	
	221	1.84:1	1750	350	TEFC	2	W	101	M20E1501	2986	D-49b	342	C	C	
	221	2.76:1	950	190	TEFC	2	W	101	M20E1502	3353	D-49b	342	C	C	
	231	6.2:1	420	84	TEFC	2	W	101	M20E1503	3802	D-49b	402	B	B	
	232	9.3:1	280	56	TEFC	2	W	105	M20E1504	3925	D-49b	362	D	D	
	232	20.9:1	125	25	TEFC	2	W	105	M20E1505	4416	D-49b	375	C	C	
7 1/2	243	38.4:1	68	13.6	TEFC	2	W	105	M20E1506	4784	D-49b	590	B	B	
	243	86.5:1	30	6	TEFC	2	W	105	M20E1507	5785	D-49b	590	C	C	
	300	None	3220	644	TEFC	2	W	100	M30E1300	4003	D-49b	416	*	*	
	331	1.84:1	1430	286	TEFC	2	W	101	M30E1301	4257	D-49b	521	*	*	
	331	4.13:1	780	156	TEFC	2	W	101	M30E1302	4459	D-49b	521	B	B	
	341	6.2:1	420	84	TEFC	2	W	101	M30E1303	4703	D-49b	544	*	*	
	332	14.0:1	190	38	TEFC	2	W	105	M30E1304	5169	D-49b	580	*	*	
10	342	31.4:1	100	20	TEFC	2	W	105	M30E1305	5473	D-49b	616	B	B	
	343	57.7:1	45	9	TEFC	2	W	105	M30E1306	6283	D-49b	626	A	A	
	300	None	3220	644	TEFC	2	W	100	M30E1500	5837	D-49b	440	C	C	
	331	1.84:1	1430	286	TEFC	2	W	101	M30E1501	5493	D-49b	544	C	C	
	331	4.13:1	780	156	TEFC	2	W	101	M30E1502	5573	D-49b	544	*	*	
	341	6.2:1	420	84	TEFC	2	W	101	M30E1503	6283	D-49b	544	B	B	
	342	14.0:1	190	38	TEFC	2	W	105	M30E1504	6648	D-49b	640	A	A	
10	342	31.4:1	100	20	TEFC	2	W	105	M30E1505	6992	D-49b	640	*	*	
	353	57.7:1	45	9	TEFC	2	W	105	M30E1506	8281	D-49b	986	A	A	

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3) (4) An asterisk \* denotes that this is a re-op unit. Check delivery when ordering.

(5) Also check the Moto Drive stock ratings, pp M1-121 through M1-126.

(6) All motors totally enclosed, all drives output rated.

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50

# REEVES MAS 51 DRIVE PARALLEL GEARING

(1), (2), (5), (6)

PARALLEL GEARING													STOCK (4) LOCATIONS	
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
15	400	None	3220	644	TEFC	2	W	100	M40E1100	7935	D-49b	630	B	B
	441	1.84:1	1430	286	TEFC	2	W	101	M40E1101	7539	D-49b	685	*	*
	441	4.13:1	780	156	TEFC	2	W	101	M40E1102	8391	D-49b	685	*	*
	451	6.2:1	420	84	TEFC	2	W	101	M40E1103	8614	D-49b	770	*	*
	442	14.0:1	190	38	TEFC	2	W	105	M40E1104	9243	D-49b	815	A	A
	452	31.4:1	100	20	TEFC	2	W	105	M40E1105	10,336	D-49b	1095	*	*
20	400	None	3220	644	TEFC	2	W	100	M40E1300	9323	D-49b	665	*	*
	441	1.84:1	1430	286	TEFC	2	W	101	M40E1301	9080	D-49b	720	A	A
	441	4.13:1	780	156	TEFC	2	W	101	M40E1302	9790	D-49b	720	A	A
	451	6.2:1	420	84	TEFC	2	W	101	M40E1303	11,005	D-49b	805	A	A
	452	14.0:1	190	38	TEFC	2	W	105	M40E1304	11,654	D-49b	850	A	A
	452	31.4:1	100	20	TEFC	2	W	105	M40E1305	12,768	D-49b	1130	A	A

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3)

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50

(4) An asterisk \* denotes that this is a re-op unit.  
Check delivery when ordering.

(5) Also check the Moto Drive stock ratings, pp M1-121 through M1-126.

(6) All motors totally enclosed, all drives output rated.



## REEVES MAS 51 DRIVE (1), (2), (5), (7) RIGHT ANGLE GEARING

													STOCK (4) LOCATIONS	
HP	SIZE	RATIO	OUTPUT RPM		MOTOR ENCL.	V O L T S (3)	HW POS.	MOUNTING ASSEMBLY	ORDERING NUMBER	LIST PRICE \$	DISC. SYM.	APPROXIMATE WEIGHT	LAWRENCEBURG	HAYWARD
			Max.	Min.										
1/4	05W12	12.7:1	230	46	TEFC	2	W	170-K1	M05E1000	1001	D-49b	81	*	*
	05W12	25:1	100	20	TEFC	2	W	170-K1	M05E1001	1043	D-49b	81	*	*
	05W12	50:1	56	11.2	TEFC	2	W	170-K1	M05E1002	1168	D-49b	81	*	*
1/2	05W12	12.7:1	230	46	TEFC	2	W	170-K1	M05E1200	1022	D-49b	83	*	*
	05W16	30:1	100	20	TEFC	2	W	170-K1	M05E1201	1063	D-49b	98	*	*
	05W16	40:1	68	13.6	TEFC	2	W	170-K1	M05E1202	1182	D-49b	98	*	*
3/4	05W12	12.7:1	230	46	TEFC	2	W	170-K1	M05E1400	1063	D-49b	85	B	B
	05W16	30:1	100	20	TEFC	2	W	170-K1	M05E1401	1105	D-49b	100	D	D
	05W16	40:1	68	13.6	TEFC	2	W	170-K1	M05E1402	1390	D-49b	100	C	C
1	1W16	12.7:1	230	46	TEFC	2	W	170-K1	M10E1200	1404	D-49b	155	*	*
	1W21	30:1	100	20	TEFC	2	W	170-K1	M10E1201	1487	D-49b	185	*	*
	1W21	40:1	68	13.6	TEFC	2	W	170-K1	M10E1202	1626	D-49b	185	*	*
	1C16	70:1	45	9	TEFC	2	W	170-K1	M10E1203	1731	D-49b	181	*	*
1 1/2	1W16	12.7:1	230	46	TEFC	2	W	170-K1	M10E1400	1612	D-49b	161	C	C
	1C16	30:1	100	20	TEFC	2	W	170-K1	M10E1401	1835	D-49b	176	*	*
	1C16	40:1	68	13.6	TEFC	2	W	170-K1	M10E1402	1918	D-49b	176	*	*
	1C16	70:1	45	9	TEFC	2	W	170-K1	M10E1403	2036	D-49b	176	*	*
2	1W21	12.7:1	230	46	TEFC	2	W	170-K1	M10E1600	2085	D-49b	190	B	B
	1C16	30:1	100	20	TEFC	2	W	170-K1	M10E1601	2210	D-49b	186	*	*
	1C16	40:1	68	13.6	TEFC	2	W	170-K1	M10E1602	2231	D-49b	186	*	*
	1C21	60:1	45	9	TEFC	2	W	170-K1 (6)	M10E1603	2335	D-49b	276	B	B
3	2W21	10:1	280	56	TEFC	2	W	170-K1	M20E1200	3531	D-49b	320	B	B
	2W28	20:1	155	31	TEFC	2	W	170-K1	M20E1202	3225	D-49b	360	*	*
	2W28	20:1	125	25	TEFC	2	W	170-K1	M20E1203	3225	D-49b	360	B	B
	2W28	25:1	100	20	TEFC	2	W	170-K1	M20E1204	3225	D-49b	360	A	A
5	2W28	7.5:1	420	84	TEFC	2	W	170-K1	M20E1400	4601	D-49b	370	*	*
	2W28	7.5:1	350	70	TEFC	2	W	170-K1	M20E1401	4601	D-49b	370	A	A
	2C21	25:1	125	25	TEFC	2	W	170-K1	M20E1402	3393	D-49b	390	*	*
	2C21	25:1	100	20	TEFC	2	W	170-K1	M20E1403	3393	D-49b	390	A	A
	2C28	70:1	45	9	TEFC	2	W	170-K1 (6)	M20E1404	4476	D-49b	490	*	*
	2C28	70:1	37	7.4	TEFC	2	W	170-K1 (6)	M20E1405	4476	D-49b	490	*	*
	2C28	86:1	30	6	TEFC	2	W	170-K1 (6)	M20E1406	4476	D-49b	490	A	A

(1) For available modifications / options, refer to pp. M1-132—M1-134.

(2) For delivery information, see page M1-135.

(3)

VOLTAGE CODE			
CODE	VOLTAGE	CODE	VOLTAGE
1	115/230	9	208/220/440
2	230/460	10	240
3	230	11	115
4	440	12	2300
5	575	13	200
6	460	14	200/400
7	220/440/762	15	115/230-50
8	208	16	220/380-50

(4) An asterisk \* denotes that this is a re-op unit.

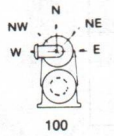
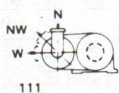
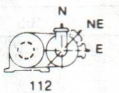
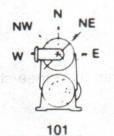
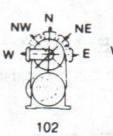
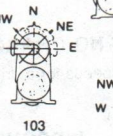
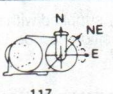
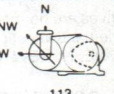
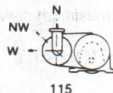
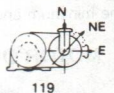
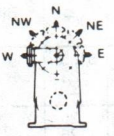
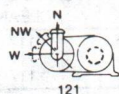
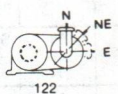
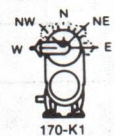



Check delivery when ordering.

(5) Also check the MAS 51 Drive stock ratings, pp M1-121 through M1-126.

(6) Rating cannot be modified to horizontal assembly.

(7) All motors totally enclosed, all drives output rated.

# Assemblies

DRIVE TYPE	STANDARD ASSEMBLY	OPTIONAL ASSEMBLIES
<b>Non-Gear</b> <b>Sizes:</b> 050, 100, 200, 300, 400, 500	 100	 111  112
<b>Single Reducer</b> <b>Sizes:</b> 051, 111, 121, 221, 331, 441, 551	 101	 102  103  117  113  115  119
<b>Double &amp; Triple Reducers</b> <b>Sizes:</b> 052, 053, 112, 113, 122, 123, 222, 232, 233, 243, 332, 342, 353, 442, 552	 105	 121  122
<b>Right Angle Reducers</b> <b>Sizes:</b> 05W12, 05C12, 05W16, 1W16, 1C16, 1C21 (1), 1W21, 2W21, 2C21, 2W28, 2C28 (1)	 170-K1	 171-L1  173-L1  174 K-1

(1) These sizes cannot be changed to horizontal assemblies.



# Modifications/Options for Stock Drives

## 1. ASSEMBLIES CHANGES—NO CHARGE

If the drive is stocked in the following assembly	It can be modified at the stocking location to any of the following assemblies
100	111, 112
101	102, 103 113, 115 117, 119
105	121, 122
170-K1	171-L1 173-L1 174-K1

## 2. HANDWHEEL POSITION CHANGES—NO CHARGE

Drives are normally supplied with the handwheel in position 'W' for vertical assemblies and position 'N' for horizontal assemblies. The handwheel position can be changed at the stocking center to any of the following:  
E, NE, N, NEW, W.

## 3. SPEED SETTINGS—NO CHARGE

The minimum and maximum speeds for a drive can be adjusted within the range shown in the rating tables.

## 4. MOTOR OPTIONS (1)

SIZE	HP	DISCOUNT—D-49a			DISCOUNT—D-49b		
		MAS 51 DRIVE LIST PRICE ADDITION			MOTO DRIVE LIST PRICE ADDITION		
		XP	XT	BISSC/EASY CLEAN	XP	XT	BISSC/EASY CLEAN
050	1/4	\$167	\$125	\$117	\$167	\$125	\$ 117
	1/2	167	125	117	167	125	117
	3/4	183	125	117	—	—	—
100	1/4	—	—	—	167	125	117
	1/2	—	—	—	167	125	117
	3/4	—	—	—	183	125	117
	1	183	183	139	183	183	139
	1 1/2	192	197	167	192	197	167
200	2	409	264	289	—	—	—
	3	534	328	373	409	264	289
	5	539	334	395	236	31	373
300	3	—	—	—	236	31	373
	5	—	—	—	234	28	—
	7 1/2	\$901	648	—	289	44	—
	10	930	673	—	—	—	—

NOTES:

(1) List price adders apply to stock book pricing only.

IMPORTANT:

For information and availability on other type motor enclosures/special voltage motors and all other possible modifications and or accessories, contact the Reeves Application Engineering Department in Columbus, Indiana at (812) 376-1100.

## 5. ELECTRIC REMOTE CONTROLS (ERC): (1)

### LIST PRICE ADDITIONS (2) (3)

SIZE	HEAVY DUTY ERC WITH PUSHBUTTON STATION	STANDARD TRANSFORMER (IF REQUIRED)	EXTRA PUSHBUTTON STATION	XP ERC (4) WITH XP PUSHBUTTON STATION	XP ERC (4) WITH NON-XP PUSHBUTTON STATION
050	\$459	\$75	\$36 ea.	Not Avail.	Not Avail.
100	459	75	36 ea.	Not Avail.	Not Avail.
200	459	75	36 ea.	\$1287	\$1120
300	459	75	36 ea.	1287	1120

#### NOTES:

- For additional information on ERC, refer to page M1-68.
- These prices are to be used for pricing new equipment only. These prices should **not** be used as pricing for accessories for existing equipment.
- Discount: D-49a
- Control Position: Standard LH only. XP = Explosion Proof.

## 6. DIGITAL TACHS: WITH MAGNETIC PULSE PICKUP

### LIST PRICE (1) (2)

Field Programmable, 115 Volt AC Powered, Panel Mount Specify either	\$577.00
"Rate" or "Time-in-Process" indication	167.00
For NEMA 4X and 13 Enclosure ADD	709.00
For Explosion Proof Enclosure ADD	384.00
For Explosion Proof Pickup ADD	71.00
For Bench Mount ADD	

#### NOTES:

- Discount: D-49a
- These prices are to be used when pricing new equipment only. These prices should **not** be used on pricing for accessories for existing equipment.

#### IMPORTANT:

For information and availability on other type motor enclosures/special voltage motors and all other possible modifications and/or accessories, contact the Reeves Application Engineering Department in Columbus, Indiana at (812) 376-1100.



# Modifications/Options for Stock Drives

## 7. AIRTROL: (1)

LIST PRICE ADDITIONS (2) (3)

SIZE	STANDARD AIRTROL	STANDARD AIRTROL W/XP (4) SOLENOID VALVE
100	\$2057	\$2093
200	2106	2142
300	2106	2142
400	2567	2605

### NOTES:

- (1) For additional information on Airtrol®, refer to page M1-62.
- (2) Discount: D-49a
- (3) These prices are to be used when pricing new equipment only. These prices should **not** be used when pricing for accessories for existing equipment.
- (4) XP = Explosion Proof

### IMPORTANT:

For information and availability on other type motor enclosures/special voltage motors and all other possible modifications and/or accessories, contact the Reeves Application Engineering Department in Columbus, Indiana at (812) 376-1100.

# Delivery from Stock

**Unmodified Stock Ratings**—Unmodified stock ratings will ship within two working days after receipt of order

**Modified Stock Ratings**—Modified units will ship within five to ten working days after receipt of order.

## 48-HOUR PROGRAM

Modified stock units are available for shipment within 48 hours. When required, 48 hour delivery should be specified at order entry. 48 hour delivery is not available on units equipped with Airtrol or digital tachometer.

## DELIVERY FROM PRODUCTION

### NORMAL PRODUCTION

MOTO- DRIVE SIZE	STD. CYCLE* NON GEAR, PAR. RED. (5) & STOCKED RIGHT ANGLE REDUCERS	RIGHT ANGLE NON- STOCK STD. REDUCER	MODIFIED & NON-STD. RIGHT ANGLE REDUCERS
050	5 Weeks	10 Weeks	11 Weeks
100			12 Weeks
200			
300			
400	6 Weeks		
500			
600			
600K	Contact Customer Service		

\*Standard Cycles for Moto Drive and MAS 51 Drive is based on the following:

- (1) Drive motor must be stocked, see Table A, page M1-136, for a complete listing of the drive motors. Determine delivery of drives using unstocked motors in the following manner:
    - Frames 56, 140T, add 4 weeks to standard cycle.
    - Frames 182T, 215T, add 5 weeks to standard cycle.
    - Frames 254T, 256T, 284T, 326T, add 5 weeks to standard cycle.
  - (2) Standard stock output and variable shafts. For non-stock or special shaft add 2 weeks to the cycle.
  - (3) Stock gearing. For stocked right angle reducers, see Table B, page M1-136.
  - (4) Special enclosures (Easy Clean, BISSC, Totally Enclosed Corrosion Resistant, Easy Clean, Sanitary, etc., as long as the motor is stocked), as shown in Table A, page M1-136.
  - (5) Airtrol, standard voltage and frequency.
  - (6) ERC, standard voltage, all normal entry and all single phase heavy duty.
  - (7) Standard A-C Tachometer.
  - (8) Digital Tachometer.
  - (9) Standard extended controls.
  - (10) Stocked brakes. See Table C, page M1-137, for a complete listing of stated brakes.
- Contact Reeves Customer Service (812)-378-2425, 2422, 2334, 2353 before quoting the following modifications and accessories:
- (a) Explosion proof enclosure for Digital Tachometers
  - (b) Vari-cycle Power Units
  - (c) Special Internals
  - (d) Units with open or closed loop ERC Systems.

## REEVES RAPID RESPONSE

### 3-R PROGRAM

#### HERE'S WHAT IT IS

The 3-R Program is an Internal procedure established by Reeves to provide inquiry response within a 24-hour period. If you need a quick delivery promise on a Reeves Product, the 3-R Program is designed for you.

#### HERE'S HOW IT WORKS

Just contact Reeves Customer Service(1) and identify you inquiry as a 3-R request. Customer Service will then contact you within 24 hours with a delivery promise based upon receipt of the order within 48 hours.

It is important to remember that this is a shipping promise only and does not constitute an acknowledgement, since at that point in time no order has actually been placed.

If your inquiry is not identified as a 3-R request, Customer Service will respond within the normal 48 hours or sooner.

(1) Phone (812) 378-2425, 2422, 2353, 2334



# Delivery from Production

**TABLE A. DRIVE MOTORS NORMALLY STOCKED FOR PRODUCTION  
(ALL LEADS STANDARD)**

TABLE A. DRIVE MOTORS NORMALLY STOCKED FOR PRODUCTION (ALL LEADS STANDARD)													SPECIAL ENCLOSURES				EASY CLEAN	BISSC	SXT XT	XE XT
													TYPE P 230 460 60 3		TYPE P 230 460 60 3					
HP	RPM	BELT CASE (SIZE)	TYPE P (O) 220 440 50 3 (X) 230 460 60 3			TYPE P (O) 220 380 50 3 (X) 200 60 3			TYPE P 575 60 3			TYPE CS (O) 115 230 50 1 (X) 115 230 60 1								
			DP	TE	XP	DP	TE	XP	DP	TE	XP	DP	TE	XP						
1/4	1800	050		X	X					X			X	X	X			X		
1/4	1800	100		X	X		O			X			X	X	X		X	X		
1/4	1200	100		X						X					X					
1/2	1800	050		X	X		XO	O		X			X	X	X			X		
1/2	1800	100		X	X					X			X		X		X	X		
1/2	1200	100		X	X															
3/4	1800	050		X	X		O			X			X		X					
3/4	1800	100		X	X		XO			X			X		X		X	X		
1	1800	100		X	X		XO			X			X		X		X	X		
1-1/2	1800	100		XO	X		XO	O		X	X		X		X		X	X		
1-1/2	1200	200		X																
2	1800	200	X	XO	X	O	XO			X	X				X		X	X		
3	1800	200	XO	XO	X	XO	XO			X	X	X			X		X	X		
3	1200	300	X	X															X	
5	1800	300	XO	X	X	XO	XO			X	X	X			X		X	X	X	
7-1/2	1800	300	X	X	X	XO	XO			X	X	X			X		X	X	X	
7-1/2	1200	400	X	X	X															
10	1800	400	XO	X	X	XO	XO			X	X				X		X	X	X	
15	1800	400	X	X	X										X		X	X		
15	1200	500	X	X	X															
20	1800	500	X	X	X															
20	1200	500	X	X	X													X		
25	1800	500	X	X	X															
25	1200	500	X	X	X															
30	1800	600	X	X	X															
30	1200	600	X	X	X															
40	1800	600	X	X	X															
50	1800	600K	X	X	X															

**TABLE B. RIGHT ANGLE GEAR REDUCERS NORMALLY STOCKED FOR PRODUCTION**

050 BELT CASE (SIZE)			
Ratio	W12	W16	C12
10	X	X	
12.7	X	X	
15	X(1)	X	
18	X(1)	X	
20	X(1)	X	
25	X	X	(2)
30	X(1)	X	(2)
36			(2)
40	X(1)	X	(2)
50	X	X	X(1)
60		X(1)	X(1)
70			X
86			X(1)
101			X

100 BELT CASE (SIZE)					
Ratio	W16	W21	C16	C21	C28
10	X	(2)			
12.7	X	X			
15	X	(2)			
18	X	X			
20	X	X(1)	(2)	(2)	(2)
25	X	X	(2)	(2)	(2)
30	X	X	X	(2)	(2)
36			X(1)	(2)	
40	X	X	X	(2)	
50	X	X	X	(2)	(2)
60		X	X	X	(2)
70			X	(2)	(2)
86			X	(2)	(2)
101			X	X	
121			X	(2)	(2)
144			X	X(1)	(2)
162				X(1)	
192			(2)	X	(2)
240			(2)	X	X
288			X(1)	X	
336					

200 — 300 BELT CASE (SIZE)				
Ratio	C21	C28	W21	W28
7.5				X(1)
18			X(1)	X(1)
20				X(1)
25	X(1)			X(1)
36	X(1)			
50	X	X	(2)	
60	(2)	X	(2)	
70	(2)	X(1)		
86	X(1)	X(1)		
144	(2)	X		
192	(2)	X		

Notes.

- (1) Stocked as K-1 assembly only.
- (2) Available from RMC on 4 week Red Baron cycle, quote 5 weeks on Moto Drive units with these ratings. (No special features such as shafts, flanges, STD gearcases only apply to 5 week cycle.)

**TABLE C. BRAKES NORMALLY STOCKED FOR PRODUCTION**  
**D-Dings, M-Master<sup>(1)</sup>, S-Stearns<sup>(2)</sup>**

TORQUE FT. LB.	MD SIZE	VOLTS	HZ	ENCLOSURE		
				STD	SEVERE DUTY	XP
1.5 (3)	050	230	60	D		
1.5 (3), (4)	050	230 460	60	D		
3 (4)	050	230	60	D		
3 (4)	050	460	60	D		
3	050	115	60	D		
3 (4)	100	230 460	60	MS	M	
3	100	115 230	60	M		
6	100	230 460	60	M	M	
6	100	115 230	60	MS		
10	100	230 460	60			S
10	100, 200	230 460	60	MS	M	
10	300	230 460	60	S		
15	200	230 460	60	MS	M	
15	300	230 460	60	S		
25	200	230 460	60	S		
25	300	230 460	60	S		
25	400	230 460	60	S		
50	300, 400, 500	230 460	60	S		
75	400, 500	230 460	60	S		
125	400, 500	230 460	60	S		

Notes: (1) The following voltage options are available on all stock Master brakes without affecting the standard delivery cycle.

115-120	60	460 480	60
104	50	380	50
220-230	60	550	50
440	60	200	60
550	60	240	50
115	50	550	60
208	60	575-600	60
104	60	115 230	60
575-600	60	220 440	60
500	50	115 230	50
240	60	220 440	50
200-208	50	230 460	60
480	60	240 480	60
400-415	50	190 380	50
440-460	50		
600	60		

(2) Check with Reeves Customer Service (812) 378-2425, 2353, 2422, 2334. Present deliveries better than past several years. Immediate answers available on specific inquiries.

(3) When Stearns stock exhausted, Dings will be provided.

(4) Stearns will not be re-ordered for stock. When current stock is exhausted, Stearns will be available on special order basis only.

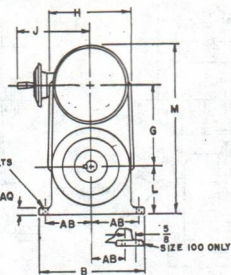
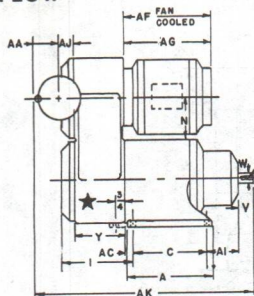


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Control Positions	M1-197 thru M1-201
Internals	M1-202 thru M1-204

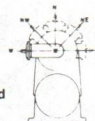
## C-FLOW

## VERTICAL NO REDUCER



Assembly 100 Standard

"C" FLOW ASSEMBLY



100 Standard

"C" AND "Z" FLOW — SIZES 050 THRU 600K

Size	A	B	C	G	H	I	J	L	M
050	7 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>
100	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	16 <sup>9</sup> / <sub>16</sub>
200	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	20 <sup>9</sup> / <sub>16</sub>
300	13 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>9</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>
400	17 <sup>7</sup> / <sub>8</sub>	18 <sup>3</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>11</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>
500	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>3</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>8</sub>	38 <sup>7</sup> / <sub>16</sub>
600 & 600K	24 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>2</sub>	22	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>8</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>8</sub>	40 <sup>1</sup> / <sub>8</sub>

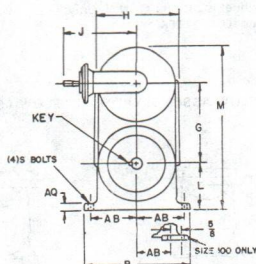
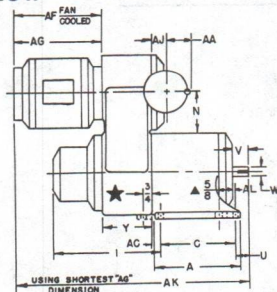
Size	N	S	V	W	Y	AA	AB	AC	AI
050	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>16</sub>
100	4 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	—	2 <sup>13</sup> / <sub>16</sub>
200	4 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1	6 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>
300	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>
400	7 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>
500	10 <sup>5</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	2	11	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	4
600 & 600K	11 <sup>9</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	7	2 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	7	10 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>11</sup> / <sub>16</sub>

Size	AJ	AK	AQ	Key	Z-Flow Only		
					I	U	AK
050	1 <sup>3</sup> / <sub>16</sub>	17 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub> SQ. x 1	8 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>16</sub>	23 <sup>1</sup> / <sub>8</sub>
100	7 <sup>5</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub> SQ. x 1 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>16</sub>	21 <sup>9</sup> / <sub>16</sub>	26 <sup>5</sup> / <sub>16</sub>
200	1 <sup>9</sup> / <sub>16</sub>	26 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> SQ. x 2 <sup>1</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	30 <sup>11</sup> / <sub>16</sub>
300	1 <sup>3</sup> / <sub>4</sub>	32 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub> SQ. x 2 <sup>13</sup> / <sub>16</sub>	16 <sup>9</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>4</sub>
400	2 <sup>7</sup> / <sub>16</sub>	41 <sup>11</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub> SQ. x 3 <sup>7</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>	43 <sup>9</sup> / <sub>16</sub>
500	3 <sup>7</sup> / <sub>16</sub>	49 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub> SQ. x 4 <sup>3</sup> / <sub>4</sub>	23 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	53 <sup>7</sup> / <sub>16</sub>
600 & 600K	4 <sup>3</sup> / <sub>4</sub>	58 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub> SQ. x 5 <sup>7</sup> / <sub>8</sub>	26 <sup>11</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	59 <sup>7</sup> / <sub>8</sub>

NOTE: 050 available in Handwheel Locations W, N, E only.

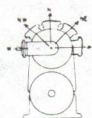
(1) 45° Assemblies available on sizes 100 thru 600K.

## Z-FLOW



100-EA Standard

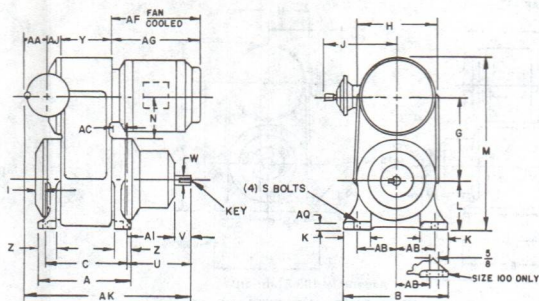
"Z" FLOW ASSEMBLY



Assembly 100-EA Standard



## VERTICAL TRUNNION NO REDUCER — C-FLOW



Assembly 106

### "C" AND "Z" FLOW — SIZES 050 THRU 600K

Size	A	B	C	K	G	H	I	J	L	M
050	8 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	7	2	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>
100	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	2	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>16</sub>
200	11 <sup>5</sup> / <sub>8</sub>	13	9 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>16</sub>
300	14 <sup>5</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>8</sub>	4	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>
400	17 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>8</sub>	5	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>
500	21 <sup>1</sup> / <sub>4</sub>	23	17 <sup>1</sup> / <sub>4</sub>	6	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	38 <sup>7</sup> / <sub>16</sub>
600 & 600K	21 <sup>3</sup> / <sub>4</sub>	23 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub>	6	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	40 <sup>1</sup> / <sub>8</sub>

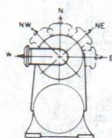
Size	N	S	V	W	Y	AA	AB	AC	AI
050	3 <sup>3</sup> / <sub>4</sub>	3 <sup>8</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	9 <sup>8</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>
100	4 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>16</sub>	3 <sup>4</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>
200	4 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>
300	6 <sup>3</sup> / <sub>8</sub>	9 <sup>8</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>16</sub>
400	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	5	6 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>
500	10 <sup>5</sup> / <sub>8</sub>	7 <sup>8</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	2	11	6	8 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>
600 & 600K	11 <sup>9</sup> / <sub>16</sub>	7 <sup>8</sup> / <sub>16</sub>	7	2 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	7	8 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>16</sub>

Size	AJ	AK	AQ	Z	Key	Z-Flow Only		
						I	U	AK
050	1 <sup>3</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub> sq. × 1	2 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	17 <sup>3</sup> / <sub>4</sub>
100	7 <sup>8</sup> / <sub>16</sub>	15	1 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub> sq. × 1 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>8</sub>	3	19 <sup>1</sup> / <sub>16</sub>
200	1 <sup>9</sup> / <sub>16</sub>	21 <sup>3</sup> / <sub>16</sub>	7 <sup>8</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub> sq. × 2 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>16</sub>	24 <sup>3</sup> / <sub>8</sub>
300	1 <sup>9</sup> / <sub>16</sub>	26 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub> sq. × 2 <sup>1</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	27 <sup>5</sup> / <sub>8</sub>
400	2 <sup>7</sup> / <sub>16</sub>	32 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>8</sup> / <sub>16</sub> sq. × 3 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	6 <sup>7</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>16</sub>
500	3 <sup>7</sup> / <sub>16</sub>	40 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub> sq. × 4 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>8</sub>	8 <sup>9</sup> / <sub>16</sub>	41 <sup>3</sup> / <sub>8</sub>
600 & 600K	4 <sup>3</sup> / <sub>4</sub>	46 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>7</sup> / <sub>8</sub>	5 <sup>8</sup> / <sub>16</sub> sq. × 5 <sup>7</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	44 <sup>1</sup> / <sub>16</sub>

NOTE: 050 available in handwheel locations W, N, E only.

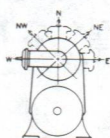
(1) 45° Assemblies available on sizes 100 thru 600K.

### "C" FLOW ASSEMBLY



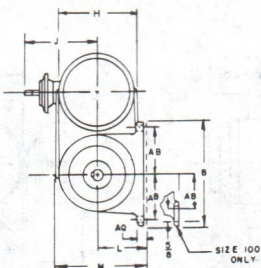
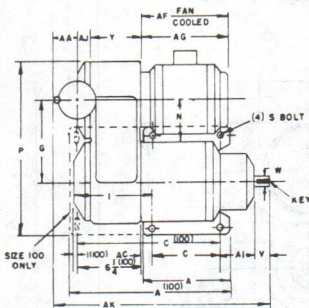
106

### "Z" FLOW ASSEMBLY

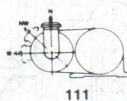


106-A

## HORIZONTAL NO REDUCER — C-FLOW



### "C" FLOW ASSEMBLIES



111



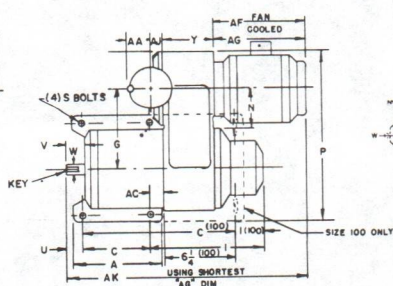
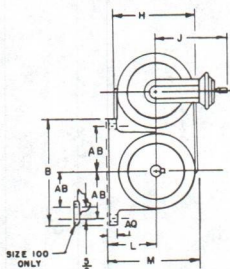
112

### "C" AND "Z" FLOW

Size	A	B	C	G	H	I	J	L	M
050	7 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>
100	15 <sup>3</sup> / <sub>4</sub>	9 <sup>9</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>
200	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>
300	13 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>9</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>8</sub>
400	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>11</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>16</sub>
500	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	20 <sup>7</sup> / <sub>16</sub>
600 & 600K	24 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>2</sub>	22	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	20 <sup>7</sup> / <sub>8</sub>

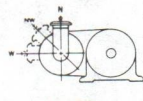
Size	N	P	S	V	W	Y	AA	AB	AC	AI
050	3 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>
100	4 <sup>1</sup> / <sub>32</sub>	16 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>
200	4 <sup>1</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>
300	6 <sup>5</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>
400	7 <sup>7</sup> / <sub>8</sub>	31 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>
500	10 <sup>5</sup> / <sub>8</sub>	39 <sup>5</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	2	11	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	4
600 & 600K	11 <sup>9</sup> / <sub>16</sub>	41 <sup>1</sup> / <sub>4</sub>	7 <sup>5</sup> / <sub>8</sub>	7	2 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	7	10 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>11</sup> / <sub>16</sub>

Size	AJ	AK	AQ	Key	Z-Flow Only		
					I	U	AK
050	1 <sup>3</sup> / <sub>16</sub>	17 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub> sq. x 1	8 <sup>1</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	23 <sup>1</sup> / <sub>8</sub>
100	7 <sup>5</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub> sq. x 1 <sup>3</sup> / <sub>4</sub>	2 <sup>9</sup> / <sub>16</sub>	2 <sup>15</sup> / <sub>16</sub>	26 <sup>9</sup> / <sub>16</sub>
200	1 <sup>9</sup> / <sub>16</sub>	26 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> sq. x 2 <sup>1</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>
300	1 <sup>3</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub> sq. x 2 <sup>1</sup> / <sub>16</sub>	16 <sup>9</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	35 <sup>1</sup> / <sub>4</sub>
400	2 <sup>7</sup> / <sub>16</sub>	41 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>7</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>8</sub>	2 <sup>11</sup> / <sub>16</sub>	43 <sup>9</sup> / <sub>16</sub>
500	3 <sup>7</sup> / <sub>16</sub>	49 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 4 <sup>3</sup> / <sub>8</sub>	23 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	53 <sup>7</sup> / <sub>16</sub>
600 & 600K	4 <sup>3</sup> / <sub>4</sub>	58 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub> sq. x 5 <sup>7</sup> / <sub>8</sub>	26 <sup>11</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	59 <sup>7</sup> / <sub>8</sub>

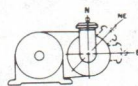


Assembly 111-EA

### "Z" FLOW ASSEMBLIES



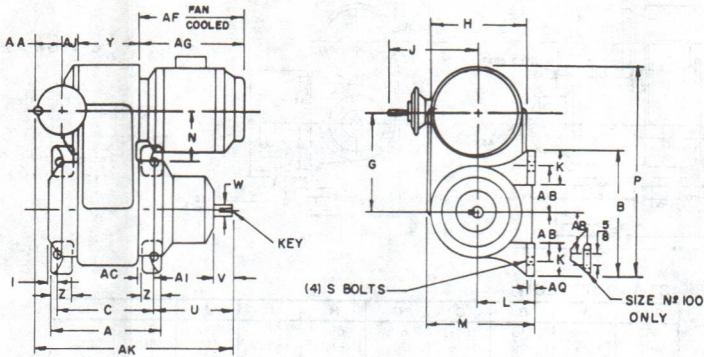
111-EA



112-EA

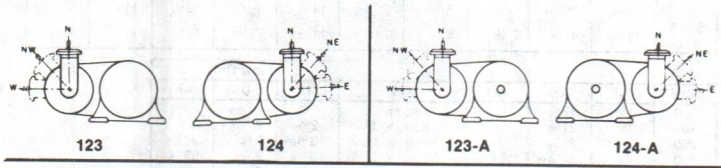


HORIZONTAL TRUNNION NO REDUCER — C-FLOW



"C" FLOW ASSEMBLIES

"Z" FLOW ASSEMBLIES



# "C" AND "Z" FLOW

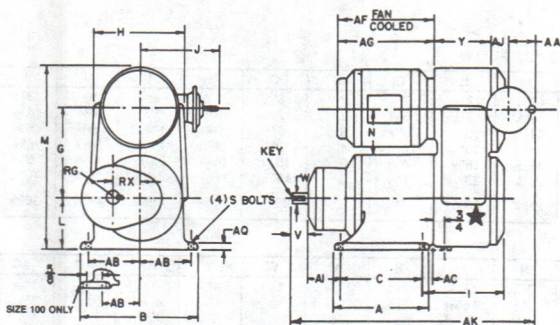
Size	A	B	C	K	G	H	I	J	L	M
050	8 $\frac{1}{4}$	7 $\frac{1}{2}$	7	2	6 $\frac{1}{2}$	6 $\frac{7}{16}$	$\frac{1}{2}$	5 $\frac{9}{16}$	3 $\frac{3}{8}$	6 $\frac{5}{8}$
100	9 $\frac{3}{4}$	9 $\frac{1}{2}$	8 $\frac{5}{8}$	2	7 $\frac{3}{4}$	8 $\frac{1}{2}$	1 $\frac{1}{16}$	6 $\frac{7}{8}$	4 $\frac{1}{4}$	8 $\frac{1}{2}$
200	11 $\frac{5}{8}$	13	9 $\frac{5}{8}$	3 $\frac{1}{2}$	9 $\frac{7}{8}$	9 $\frac{3}{4}$	1 $\frac{5}{16}$	8 $\frac{3}{4}$	5 $\frac{3}{4}$	11 $\frac{1}{4}$
300	14 $\frac{5}{8}$	15 $\frac{1}{4}$	12 $\frac{5}{8}$	4	12 $\frac{3}{8}$	11 $\frac{7}{8}$	1 $\frac{1}{2}$	10 $\frac{7}{8}$	6 $\frac{5}{8}$	13 $\frac{1}{8}$
400	17 $\frac{1}{8}$	18 $\frac{5}{8}$	14 $\frac{1}{8}$	5	15 $\frac{1}{4}$	14 $\frac{1}{4}$	2 $\frac{1}{16}$	13 $\frac{3}{8}$	8 $\frac{1}{8}$	16 $\frac{1}{16}$
500	21 $\frac{1}{4}$	23	17 $\frac{1}{4}$	6	19 $\frac{5}{8}$	17 $\frac{1}{4}$	2 $\frac{1}{16}$	14 $\frac{7}{8}$	10 $\frac{5}{8}$	20 $\frac{7}{8}$
600 & 600K	21 $\frac{3}{4}$	23 $\frac{1}{2}$	17 $\frac{3}{4}$	6	20 $\frac{3}{4}$	18 $\frac{1}{2}$	2 $\frac{1}{8}$	14 $\frac{7}{8}$	10 $\frac{5}{8}$	20 $\frac{7}{8}$

Size	N	P	S	V	W	Y	AA	AB	AC	AI
050	3 $\frac{3}{4}$	13 $\frac{1}{8}$	$\frac{3}{8}$	1 $\frac{9}{16}$	$\frac{5}{8}$	4 $\frac{1}{4}$	1 $\frac{9}{16}$	2 $\frac{3}{4}$	1 $\frac{3}{8}$	2 $\frac{11}{16}$
100	4 $\frac{1}{32}$	16 $\frac{7}{16}$	$\frac{1}{2}$	2 $\frac{5}{16}$	$\frac{3}{4}$	5 $\frac{1}{4}$	2	3 $\frac{3}{4}$	1 $\frac{11}{16}$	2 $\frac{7}{8}$
200	4 $\frac{15}{16}$	20 $\frac{15}{16}$	$\frac{1}{2}$	2 $\frac{7}{8}$	1	6 $\frac{1}{4}$	3 $\frac{5}{8}$	4 $\frac{3}{4}$	1 $\frac{11}{16}$	5 $\frac{13}{16}$
300	6 $\frac{5}{8}$	25 $\frac{1}{2}$	$\frac{5}{8}$	3 $\frac{5}{8}$	1 $\frac{1}{4}$	7 $\frac{3}{4}$	4 $\frac{3}{16}$	5 $\frac{5}{8}$	2 $\frac{3}{16}$	7 $\frac{5}{8}$
400	7 $\frac{7}{8}$	31 $\frac{1}{4}$	$\frac{3}{4}$	4 $\frac{3}{8}$	1 $\frac{1}{2}$	9 $\frac{1}{4}$	5	6 $\frac{13}{16}$	2 $\frac{7}{8}$	9 $\frac{1}{4}$
500	10 $\frac{5}{8}$	39 $\frac{5}{16}$	$\frac{7}{8}$	5 $\frac{5}{8}$	2	11	6	8 $\frac{1}{2}$	3 $\frac{3}{8}$	11 $\frac{1}{8}$
600 & 600K	11 $\frac{9}{16}$	41 $\frac{1}{4}$	$\frac{7}{8}$	7	2 $\frac{3}{8}$	11 $\frac{1}{2}$	7	8 $\frac{3}{4}$	3 $\frac{1}{8}$	13 $\frac{7}{16}$

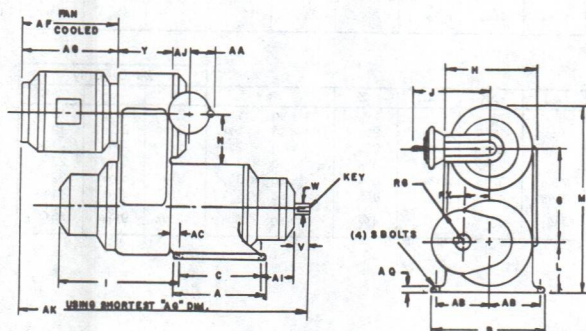
Size	AJ	AK	AQ	Z	Z-Flow Only			
					Key	I	U	AK
050	1 $\frac{3}{16}$	12 $\frac{1}{4}$	$\frac{7}{16}$	1 $\frac{15}{16}$	$\frac{3}{16}$ SQ. $\times$ 1	2 $\frac{11}{16}$	2 $\frac{1}{16}$	17 $\frac{3}{4}$
100	$\frac{7}{8}$	15	$\frac{1}{2}$	2 $\frac{1}{8}$	$\frac{3}{16}$ SQ. $\times$ 1 $\frac{3}{4}$	2 $\frac{7}{8}$	3	19 $\frac{13}{16}$
200	1 $\frac{9}{16}$	21 $\frac{5}{16}$	$\frac{7}{8}$	2 $\frac{1}{2}$	$\frac{1}{4}$ SQ. $\times$ 2 $\frac{1}{16}$	5 $\frac{13}{16}$	4 $\frac{3}{16}$	24 $\frac{3}{8}$
300	1 $\frac{3}{4}$	26 $\frac{13}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{4}$	$\frac{1}{4}$ SQ. $\times$ 2 $\frac{13}{16}$	7 $\frac{5}{8}$	5 $\frac{1}{8}$	27 $\frac{5}{8}$
400	2 $\frac{7}{16}$	32 $\frac{3}{4}$	1 $\frac{1}{4}$	3 $\frac{3}{4}$	$\frac{3}{8}$ SQ. $\times$ 3 $\frac{7}{16}$	9 $\frac{1}{4}$	6 $\frac{7}{16}$	32 $\frac{11}{16}$
500	3 $\frac{7}{16}$	40 $\frac{9}{16}$	1 $\frac{1}{2}$	4 $\frac{7}{8}$	$\frac{1}{2}$ SQ. $\times$ 4 $\frac{3}{4}$	11 $\frac{1}{8}$	8 $\frac{9}{16}$	41 $\frac{3}{8}$
600 & 600K	4 $\frac{3}{4}$	46 $\frac{13}{16}$	1 $\frac{1}{2}$	4 $\frac{7}{8}$	$\frac{5}{8}$ SQ. $\times$ 5 $\frac{7}{8}$	13 $\frac{7}{16}$	9 $\frac{13}{16}$	44 $\frac{13}{16}$



## VERTICAL SINGLE REDUCER — C-FLOW

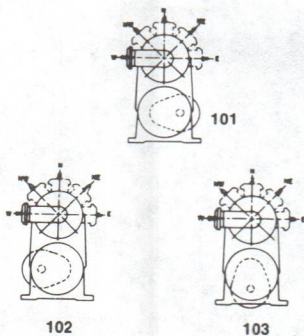


Assembly 101

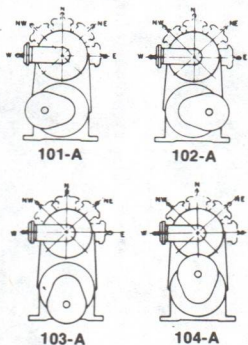


Assembly 101-A

### "C" FLOW ASSEMBLIES



### "Z" FLOW ASSEMBLIES



"C" AND "Z" FLOW

Size	A	B	C	G	H	I	J	L	M
051	7 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>
111	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>
121	10 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>
221	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>16</sub>
231	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>16</sub>
331	13 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>9</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>
341	13 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>9</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	24 <sup>1</sup> / <sub>2</sub>
441	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>
451	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>8</sub>
551	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>9</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	38 <sup>7</sup> / <sub>16</sub>
561	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>9</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	38 <sup>7</sup> / <sub>16</sub>
661 & 661K	24 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>2</sub>	22	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	40 <sup>1</sup> / <sub>8</sub>

Size	N	S	V	W	Y	AA	AB	AC	AI
051	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>
111	4 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	2	1 <sup>15</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	*	2 <sup>13</sup> / <sub>16</sub>
121	4 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	*	4 <sup>1</sup> / <sub>2</sub>
221	4 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>
231	4 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>
331	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>
341	6 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	7
441	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>
451	7 <sup>7</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>
551	10 <sup>5</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	11	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	4
561	10 <sup>5</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	11	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	10
661 & 661K	11 <sup>9</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	7	10 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>11</sup> / <sub>16</sub>

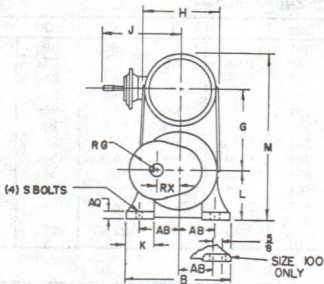
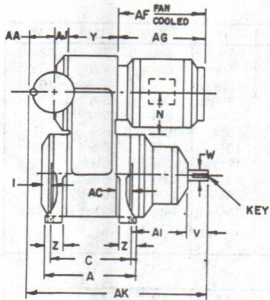
								Z-Flow Only	
Size	AJ	AK	AQ	RG	RX	Key		I	AK
051	1 <sup>3</sup> / <sub>16</sub>	17 <sup>11</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub> sq. x 1	8 <sup>1</sup> / <sub>8</sub>	25 <sup>3</sup> / <sub>8</sub>	
111	7 <sup>5</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> sq. x 1 <sup>3</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	28 <sup>3</sup> / <sub>16</sub>	
121	7 <sup>5</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub> sq. x 2	8 <sup>1</sup> / <sub>16</sub>	30 <sup>3</sup> / <sub>4</sub>	
221	19 <sup>1</sup> / <sub>16</sub>	26 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub> sq. x 2	13 <sup>9</sup> / <sub>16</sub>	34 <sup>7</sup> / <sub>16</sub>	
231	19 <sup>1</sup> / <sub>16</sub>	29 <sup>1</sup> / <sub>2</sub>	7 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub> sq. x 2 <sup>11</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>	37 <sup>1</sup> / <sub>16</sub>	
331	13 <sup>1</sup> / <sub>4</sub>	32 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub> sq. x 2 <sup>11</sup> / <sub>16</sub>	16 <sup>9</sup> / <sub>16</sub>	39 <sup>9</sup> / <sub>16</sub>	
341	13 <sup>1</sup> / <sub>4</sub>	37 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>3</sup> / <sub>8</sub>	16 <sup>9</sup> / <sub>16</sub>	44 <sup>3</sup> / <sub>8</sub>	
441	27 <sup>1</sup> / <sub>16</sub>	41 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>3</sup> / <sub>8</sub>	19 <sup>7</sup> / <sub>8</sub>	48 <sup>11</sup> / <sub>16</sub>	
451	27 <sup>1</sup> / <sub>16</sub>	47 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>8</sub>	54 <sup>3</sup> / <sub>4</sub>	
551	37 <sup>1</sup> / <sub>16</sub>	49 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>	23 <sup>7</sup> / <sub>8</sub>	58 <sup>5</sup> / <sub>16</sub>	
561	37 <sup>1</sup> / <sub>16</sub>	55 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	7	6 <sup>3</sup> / <sub>16</sub>	3 <sup>4</sup> / <sub>8</sub> sq. x 4 <sup>5</sup> / <sub>8</sub>	23 <sup>7</sup> / <sub>8</sub>	65 <sup>1</sup> / <sub>16</sub>	
661 & 661K	4 <sup>3</sup> / <sub>4</sub>	57 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	7	6 <sup>3</sup> / <sub>16</sub>	3 <sup>4</sup> / <sub>8</sub> sq. x 4 <sup>5</sup> / <sub>8</sub>	26 <sup>11</sup> / <sub>16</sub>	65 <sup>15</sup> / <sub>16</sub>	

NOTE: 051 available in handwheel locations W, N, E only.

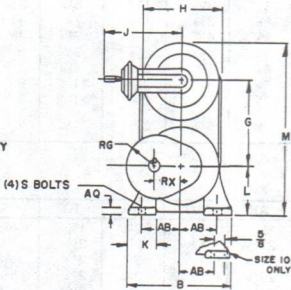
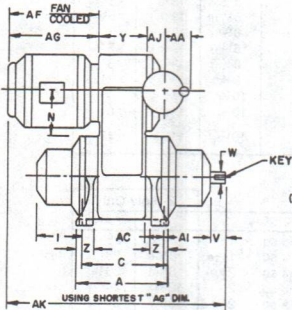
(1) 45° Assemblies available on sizes 100 thru 600K.



VERTICAL TRUNNION SINGLE REDUCER



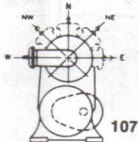
Assembly 107



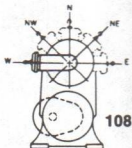
Assembly 107-A

†Add 1 Inch to AI and AK dimension for assembly 110-A

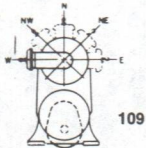
"C" FLOW ASSEMBLIES



107

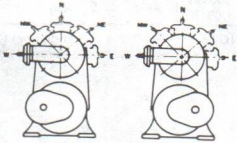


108

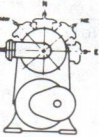


109

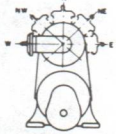
"Z" FLOW ASSEMBLIES



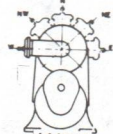
107-A



108-A



109-A



†110-A

"C" AND "Z" FLOW

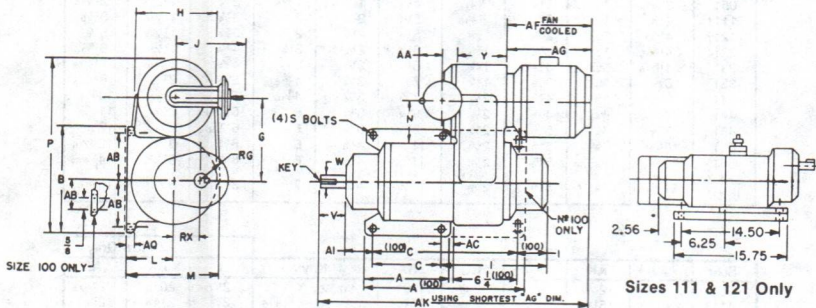
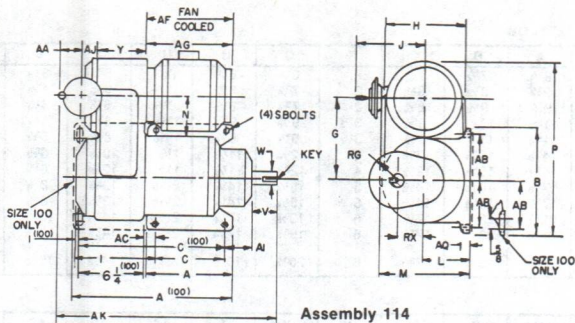
Size	A	B	C	K	G	H	I	J	L	M
051	8¼	7½	7	2	6½	67/16	½	59/16	3¾	12¾
111	9¾	9½	8½	2	7¾	8½	11/16	67/16	4¼	1515/16
121	9¾	9½	8½	2	7¾	8½	11/16	67/16	4¼	1515/16
221	11½	13	9½	3½	97/16	9¾	1¾	8¾	5¾	20¾
231	11½	13	9½	3½	97/16	9¾	1¾	8¾	5¾	20¾
331	14½	15¼	12½	4	12¾	117/16	1½	107/16	6¾	24½
341	14½	15¼	12½	4	12¾	117/16	1½	107/16	6¾	24½
441	17½	18½	14½	5	15¼	14¾	2¼	13¾	8¾	30¾
451	17½	18½	14½	5	15¼	14¾	2¼	13¾	8¾	30¾
551	21¼	23	17¼	6	19¾	17¾	211/16	147/16	10¾	387/16
561	21¼	23	17¼	6	19¾	17¾	211/16	147/16	10¾	387/16
661 & 661K	21¾	23½	17¾	6	20¾	18½	213/16	147/16	10¾	40¾

Size	N	S	V	W	Y	Z	AA	AB	AC	AI
051	3¾	¾	1¾	¾	4¼	115/16	19/16	2¾	1¾	211/16
111†	41/32	½	2	15/16	5¼	2½	2	3¾	111/16	37/16
121†	41/32	½	27/16	1¾	5¼	2½	2	3¾	111/16	57/16
221	415/16	½	27/16	1¾	6¼	2½	3¾	4¾	111/16	615/16
231	415/16	½	3¾	1¾	6¼	2½	3¾	4¾	111/16	713/16
331	6¾	¾	3¾	1¾	7¾	3¼	43/16	5¾	237/16	87/16
341	6¾	¾	4¾	2½	7¾	3¼	43/16	5¾	237/16	105/16
441	77/16	¾	4¾	2½	9¼	3¾	5	613/16	277/16	115/16
451	77/16	¾	57/16	2½	9¼	3¾	5	613/16	277/16	12½
551	10¾	7/8	57/16	2½	11	47/16	6	8½	3¾	1213/16
561	10¾	7/8	57/16	2½	11	47/16	6	8½	3¾	14¼
661 & 661K	119/16	7/8	57/16	27/16	11½	47/16	7	8¾	3¾	155/16

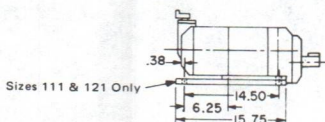
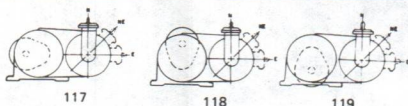
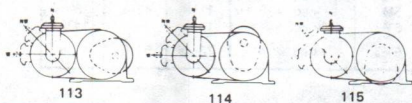
Z-Flow Only									
Size	AJ	AK	AQ	RG	RX	Key	I	AK	AI
051	13/16	125/16	7/16	2½	1½	¾ sq. x 1	211/16	20	211/16
111†	7/8	15¼	½	2¾	27/16	¼ sq. x 13/16	27/16	21¾	27/16
121†	7/8	1713/16	½	3½	2¾	¾ sq. x 2	27/16	24¼	49/16
221	19/16	227/16	7/8	3½	2¾	¾ sq. x 2	513/16	28½	51/16
231	19/16	241/16	7/8	4½	37/16	¾ sq. x 211/16	513/16	29¾	519/16
331	1¾	2715/16	1¼	4½	37/16	¾ sq. x 211/16	79/16	3115/16	513/16
341	1¾	309/16	1¼	47/16	4¼	½ sq. x 3¾	79/16	3315/16	71/16
441	27/16	3413/16	1¼	47/16	4¼	½ sq. x 3¾	9¼	3713/16	79/16
451	27/16	36¾	1¼	57/16	5½	¾ sq. x 315/16	9¼	39¾	8¾
551	37/16	41½	1½	57/16	5½	¾ sq. x 315/16	11½	46¼	85/16
561	37/16	4311/16	1½	7	63/16	¾ sq. x 4¾	11½	531/16	14¾
661 & 661K	4¾	479/16	1½	7	63/16	¾ sq. x 4¾	137/16	51½	10¼



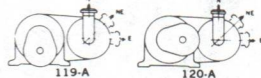
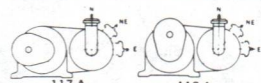
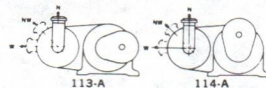
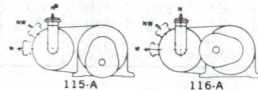
## HORIZONTAL SINGLE REDUCER — C-FLOW



### "C" FLOW ASSEMBLIES



### "Z" FLOW ASSEMBLIES



"C" AND "Z" FLOW

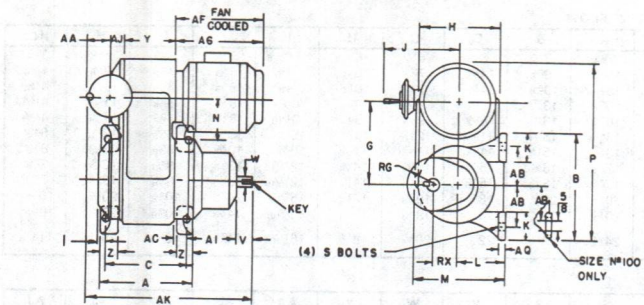
Size	A	B	C	G	H	I	J	L	M	N
051	7 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>19</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>
111	15 <sup>3</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>32</sub>
121	15 <sup>3</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>32</sub>
221	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	4 <sup>15</sup> / <sub>16</sub>
231	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	4 <sup>15</sup> / <sub>16</sub>
331	13 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>9</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>
341	13 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>9</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>
441	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>11</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>
451	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	12 <sup>11</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>
551	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	20 <sup>7</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>
561	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	20 <sup>7</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>
661 & 661K	24 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>2</sub>	22	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	20 <sup>7</sup> / <sub>16</sub>	11 <sup>9</sup> / <sub>16</sub>

Size	P	S	V	W	Y	AA	AB	AC	AI	AJ
051	13 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>16</sub>
111	16 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	2	1 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	—	2 <sup>13</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>
121	16 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	—	4 <sup>1</sup> / <sub>2</sub>	7 <sup>5</sup> / <sub>8</sub>
221	20 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>
231	20 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
331	25 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
341	25 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	7	1 <sup>3</sup> / <sub>4</sub>
441	31 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>
451	31 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	5	8 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>
551	39 <sup>9</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	11	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	4	3 <sup>7</sup> / <sub>16</sub>
561	39 <sup>9</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	11	6	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	10	3 <sup>7</sup> / <sub>16</sub>
661 & 661K	41 <sup>1</sup> / <sub>4</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	7	10 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>

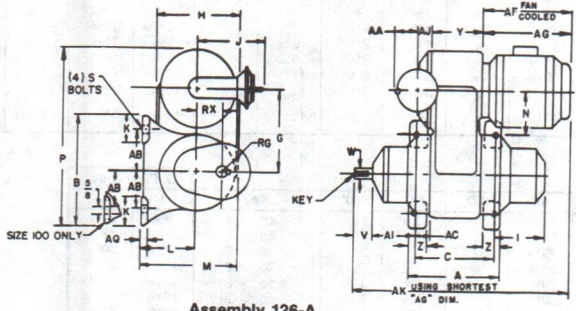
Z-Flow Only						
Size	AK	AQ	RG	RX	Key	AK
051	17 <sup>11</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub> sq. x 1	8 <sup>1</sup> / <sub>8</sub>
111	21 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> sq. x 1 <sup>1</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>16</sub>
121	23 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub> sq. x 2	2 <sup>9</sup> / <sub>16</sub>
221	26 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub> sq. x 2	13 <sup>9</sup> / <sub>16</sub>
231	29 <sup>1</sup> / <sub>2</sub>	7 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub> sq. x 2 <sup>1</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>
331	32 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub> sq. x 2 <sup>1</sup> / <sub>16</sub>	16 <sup>9</sup> / <sub>16</sub>
341	37 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>3</sup> / <sub>8</sub>	16 <sup>9</sup> / <sub>16</sub>
441	41 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>3</sup> / <sub>8</sub>	19 <sup>7</sup> / <sub>8</sub>
451	47 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>8</sub>
551	49 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>	23 <sup>7</sup> / <sub>8</sub>
561	55 <sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	7	6 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub> sq. x 4 <sup>5</sup> / <sub>8</sub>	23 <sup>7</sup> / <sub>8</sub>
661 & 661K	57 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	7	6 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub> sq. x 4 <sup>5</sup> / <sub>8</sub>	26 <sup>11</sup> / <sub>16</sub>



HORIZONTAL TRUNNION SINGLE REDUCER

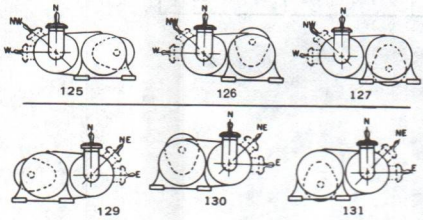


Assembly 126

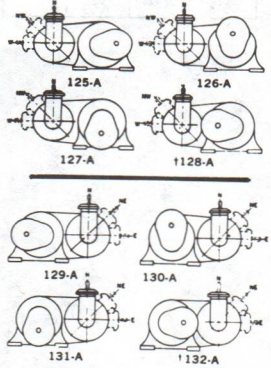


Assembly 126-A

"C" FLOW ASSEMBLIES



"Z" FLOW ASSEMBLIES



"C" AND "Z" FLOW

Size	A	B	C	K	G	H	I	J	L	M
051	8¼	7½	7	2	6½	67/16	½	59/16	3¾	6¾
111	9¾	9½	8¾	2	7¾	8½	11/16	67/8	4¼	8½
121	9¾	9½	8¾	2	7¾	8½	11/16	67/8	4¼	8½
221	11¾	13	9¾	3½	97/8	9¾	19/16	8¾	5¾	11¼
231	11¾	13	9¾	3½	97/8	9¾	19/16	8¾	5¾	11¼
331	14¾	15¼	12½	4	12¾	117/8	1½	107/8	6¾	13¾
341	14¾	15¼	12½	4	12¾	117/8	1½	107/8	6¾	13¾
441	17¾	18¾	14¾	5	15¼	14¼	21/16	13¾	8¾	161/16
451	17¾	18¾	14¾	5	15¼	14¼	21/16	13¾	8¾	161/16
551	21¼	23	17¼	6	19¾	17¼	211/16	147/8	10¾	207/16
561	21¼	23	17¼	6	19¾	17¼	211/16	147/8	10¾	207/16
661 & 661K	21¾	23½	17¾	6	20¾	18½	213/16	147/8	10¾	207/8

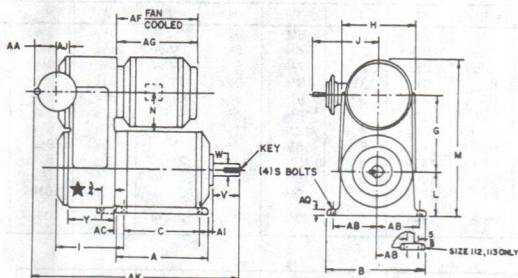
Size	N	P	S	V	W	Y	Z	AA	AB	AC
051	3¾	13½	¾	1¾	¾	4¼	115/16	19/16	2¾	1¾
111†	41/32	167/16	½	2	15/16	5¼	2½	2	3¾	111/16
121†	41/32	167/16	½	27/8	1¾	5¼	2½	2	3¾	111/16
221	415/16	2015/16	½	27/8	1¾	6¼	2½	3¾	4¾	111/16
231	415/16	2015/16	½	3¾	1¾	6¼	2½	3¾	4¾	111/16
331	6¾	25½	5¾	3¾	1¾	7¾	3¼	4¾	5¾	23/16
341	6¾	25½	5¾	4¾	2½	7¾	3¼	4¾	5¾	23/16
441	77/8	31¼	¾	4¾	2½	9¼	3¾	5	613/16	27/16
451	77/8	31¼	¾	5¾	2½	9¼	3¾	5	613/16	27/16
551	10¾	399/16	7/8	5¾	2½	11	47/8	6	8½	3¾
561	10¾	399/16	7/8	5¾	2½	11	47/8	6	8½	3¾
661 & 661K	119/16	41¼	7/8	57/8	27/8	11½	47/8	7	8¾	3¾

Size	AI	AJ	AK	AQ	RG	RX	Key	Z-Flow Only		
								I	AK	AI
051	211/16	13/16	129/16	7/16	2½	1½	¾ sq. × 1	211/16	20	211/16
111†	37/16	7/8	15¼	½	2¾	27/16	¼ sq. × 13/16	27/8	21¾	27/8
121†	5½	7/8	1713/16	½	3½	2¾	¾ sq. × 2	27/8	24¼	4¾
221	615/16	19/16	227/16	7/8	3½	2¾	¾ sq. × 2	519/16	28¾	51/8
231	713/16	19/16	241/16	7/8	4½	37/16	¾ sq. × 211/16	519/16	29¾	515/16
331	87/16	1¾	2715/16	1¼	4½	37/16	¾ sq. × 211/16	79/16	3115/16	515/16
341	109/16	1¾	309/16	1¼	47/8	4¼	½ sq. × 39/8	79/16	3315/16	71/8
441	115/16	27/16	3413/16	1¼	47/8	4¼	½ sq. × 39/8	9¼	3713/16	73/16
451	12½	27/16	36¾	1¼	57/8	5½	5/8 sq. × 315/16	9¼	39¾	8¾
551	1213/16	37/16	41½	1½	57/8	5½	5/8 sq. × 315/16	11½	46¼	89/16
561	14¼	37/16	4311/16	1½	7	63/16	¾ sq. × 49/8	11½	531/16	14¾
661 & 661K	155/16	4¾	479/16	1½	7	63/16	¾ sq. × 49/8	137/16	51½	10¼

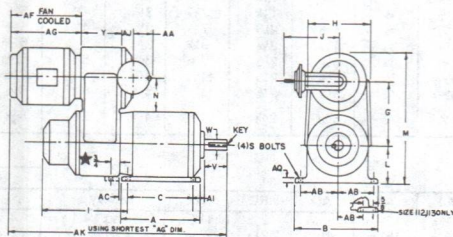
† Add 1 inch to AI and AK dimension for assemblies 128-A and 132-A.



## VERTICAL DOUBLE AND TRIPLE REDUCERS

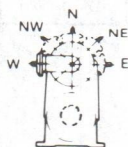


Assembly 105



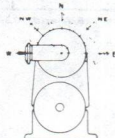
Assembly 105-A

"C" FLOW ASSEMBLY



105

"Z" FLOW ASSEMBLY



105-A

TABLE 2 — "Z" Flow Only

Size	G	M
133	10 1/2	21 1/16
233	11 1/2	22 11/16
243	11 1/2	24 3/16
353	13 3/4	29 7/8

(2) A-C Dimension for Z-Flow is 1 15/16.

**NOTE:** Position F, for front handwheel control, on "Z" flow size 243, 353 and 463 requires belt case No. 2.

# "C" AND "Z" FLOW

Size	A	B	C	G	H	I	J	L	M	N
052, 053	7/16	7/8	6/16	6 1/2	6 1/16	5 1/16	5 9/16	3 3/4	13 1/8	3 3/4
112, 113	1 1/16	9/12	10 1/4	7 3/4	8 1/2	5 7/8	6 7/8	4 7/8	16 5/16	4 3/8
122, 123	1 25/16	13	10 1/16	10 1/2	8 1/2	10 5/8	6 7/8	5 3/4	20 3/16	5 9/16
133	14	15 1/4	12 3/8	10 1/2	8 1/2	9 1/4	6 7/8	6 5/8	21 1/16	4
222, 223	1 25/16	13	10 1/16	9 7/8	9 3/4	9 1/16	8 3/4	5 3/4	20 3/16	4 15/16
232, 233	14	15 1/4	12 3/8	11 1/2	9 3/4	8 9/16	8 3/4	6 5/8	22 1/16	5
243	19 1/16	18 5/8	16 1/8	13	9 3/4	8 11/16	8 3/4	8 1/8	25 1/16	5
332, 333	14	15 1/4	12 3/8	12 3/8	11 7/8	12	10 7/8	6 5/8	24 1/2	5 7/8
342, 343	19 1/16	18 5/8	16 1/8	13 3/4	11 7/8	10 1/4	10 7/8	8 1/8	27 3/8	5 3/4
353, 353H	21 1/16	23	18 1/2	16 1/4	11 7/8	11 9/16	10 7/8	10 5/8	32 3/8	5 3/4
442, 443	19 1/16	18 5/8	16 1/8	15 1/4	14 1/4	13 5/16	13 5/8	8 1/8	30 1/16	7 1/4
452, 453, 453H	21 1/16	23	18 1/2	17 3/4	14 1/4	12 3/4	13 5/8	10 5/8	35 1/16	7 1/4
552, 552H										
553, 553H	21 1/16	23	18 1/2	19 5/8	17 1/4	16 11/16	14 7/8	10 5/8	38 7/8	9 5/8
652, 652H										
652K	21 1/16	23	18 1/2	20 3/4	18 1/2	22 3/16	14 7/8	10 5/8	40 1/8	10 1/4

Size	S	V	W	Y	AA	AB	AC	AI	AJ	AK
052, 053	3/8	1 7/8	7/8	4 1/4	1 9/16	3 3/16	9/16	2 13/16	1 3/16	18
112, 113	1/2	2 3/8	1 1/8	5 1/4	2	3 3/4	*	1 7/16	7/8	21 1/16
122, 123	1/2	3 5/8	1 3/4	5 1/4	2	5 11/16	4 1/16	1 11/16	7/8	27 9/16
133	5/8	4 3/8	2 1/8	5 1/4	2	6 13/16	2 7/16	1 7/16	7/8	28 3/8
222, 223	1/2	3 5/8	1 3/4	6 1/4	3 1/8	5 11/16	1 9/16	1 11/16	1 9/16	27 5/8
232, 233	5/8	4 3/8	2 1/8	6 1/4	3 1/8	6 13/16	1 3/16	1 7/16	1 9/16	29 15/16
243	3/4	5 1/8	2 1/2	6 1/4	3 1/8	8 1/4	1 5/16	2 7/16	1 9/16	35 9/16
332, 333	5/8	4 3/8	2 1/8	7 3/4	4 3/16	6 13/16	2 7/16	1 7/16	1 3/4	34 5/16
342, 343	3/4	5 1/8	2 1/2	7 3/4	4 3/16	8 1/4	1 1/16	2 7/16	1 3/4	38 1/16
353, 353H	7/8	6 1/8	3	7 3/4	4 3/16	10 1/4	2	2 3/16	1 3/4	42 1/2
442, 443	3/4	5 1/8	2 1/2	9 1/4	5	8 1/4	1 13/16	2 7/16	2 7/16	42 3/16
452, 453, 453H	7/8	6 1/8	3	9 1/4	5	10 1/4	1 1/4	2 3/16	2 7/16	44 3/4
552, 552H										
553, 553H	7/8	6 1/8	3	11	6	10 1/4	2 3/4	2 3/16	3 7/16	50
652, 652H										
652K	7/8	6 1/8	3	11 1/2	7	10 1/4	7 5/8 (2)	2 3/16	4 3/4	57 11/16

Size	Z-Flow Only					
	AQ	Key	G	I	M	N
052, 053	9/16	3/16 sq. x 1 1/4	6 1/2	8 1/8	13 1/8	25 11/16
112, 113	1/2	1/4 sq. x 1 9/16	7 3/4	8 1/16	16 9/16	28 7/16
122, 123	7/8	3/8 sq. x 2 11/16	7 3/4	10 13/16	17 7/16	34 9/16
133	1 1/4	1/2 sq. x 3 5/8	7 3/4	11 1/16	18 9/16	35 3/4
222, 223	7/8	3/8 sq. x 2 11/16	9 7/8	13 9/16	20 9/16	35 9/16
232, 233	1 1/4	1/2 sq. x 3 5/8	9 7/8	13 1/16	21 1/16	37 1/2
243	1 1/4	5/8 sq. x 3 15/16	9 7/8	13 9/16	22 9/16	43 1/8
332, 333	1 1/4	1/2 sq. x 3 5/8	12 3/8	17 13/16	24 1/2	40 15/16
342, 343	1 1/4	5/8 sq. x 3 15/16	12 3/8	16 1/16	26	44 11/16
353, 353H	1 1/2	3/4 sq. x 4 15/16	12 3/8	17 3/8	28 1/2	49 1/8
442, 443	1 1/4	5/8 sq. x 3 15/16	15 1/4	20 1/2	30 1/16	49 9/16
452, 453, 453H	1 1/2	3/4 sq. x 4 15/16	15 1/4	19 15/16	32 9/16	51 7/8
552, 552H						
553, 553H	1 1/2	3/4 sq. x 4 15/16	19 5/8	25 1/8	38 7/16	59 1/4
652, 652H						
652K	1 1/2	3/4 sq. x 4 15/16	20 3/4	27 1/8	40 1/8	60 5/8

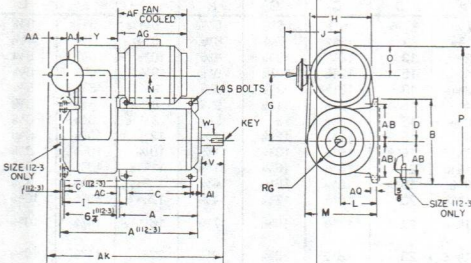
**NOTE:** 052 and 053 available in handwheel locations W, N, E only. When using control position (F) on sizes 133, 243 and "Z" now, see Table 2, page M1-152.

(1) 45° Assemblies available on sizes 100 thru 600K.

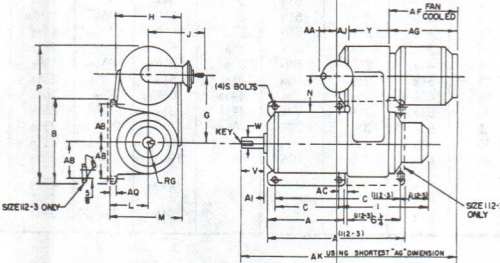
(2) AC dim. for Z-flow is 1 15/16.



HORIZONTAL DOUBLE AND TRIPLE REDUCERS

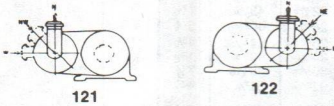


Assembly 121

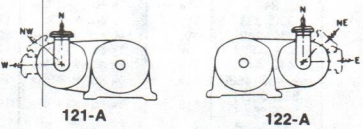


Assembly 121-A

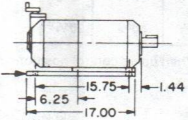
"C" FLOW ASSEMBLIES



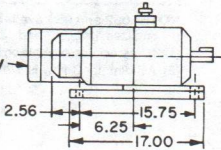
"Z" FLOW ASSEMBLIES



Sizes 112 & 113 Only



Sizes 112 & 113 Only



# "C" AND "Z" FLOW

Size	A	B	C	G	H	I	J	L	M	N
052, 053	7 <sup>1</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>8</sub>	5 <sup>15</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	6 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>
112, 113	17	9 <sup>9</sup> / <sub>16</sub>	15 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>
122, 123	12 <sup>5</sup> / <sub>16</sub>	13	10 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	10 <sup>5</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	10	5 <sup>9</sup> / <sub>16</sub>
133	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	6 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	4
222, 223	12 <sup>5</sup> / <sub>16</sub>	13	10 <sup>1</sup> / <sub>16</sub>	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>
232, 233	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	8 <sup>9</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>16</sub>	5
243	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	13	9 <sup>3</sup> / <sub>4</sub>	8 <sup>11</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>16</sub>	5
332, 333	14	15 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	12	10 <sup>7</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>
342, 343	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	13 <sup>3</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	10 <sup>7</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	14 <sup>9</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>
353, 353H	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>4</sub>	11 <sup>7</sup> / <sub>8</sub>	11 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>4</sub>
442, 443	19 <sup>1</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>
452, 453, 453H	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	17 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>16</sub>	10 <sup>5</sup> / <sub>8</sub>	18 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>
552, 552H										
553, 553H	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	19 <sup>5</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>4</sub>	16 <sup>11</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>8</sub>
652, 652H										
652K	21 <sup>5</sup> / <sub>16</sub>	23	18 <sup>1</sup> / <sub>2</sub>	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	22 <sup>3</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>5</sup> / <sub>8</sub>	20 <sup>15</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>4</sub>

Size	P	S	V	W	Y	AA	AB	AC	AI	AJ
052, 053	13 <sup>3</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	2 <sup>13</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>
112, 113	16 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	3 <sup>3</sup> / <sub>4</sub>	—	—	7 <sup>5</sup> / <sub>8</sub>
122, 123	20 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	2	5 <sup>11</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>
133	22 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	6 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>
222, 223	20 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>
232, 233	23 <sup>1</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	6 <sup>13</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
243	26 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>4</sub>	1 <sup>15</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>
332, 333	25 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
342, 343	28 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	1 <sup>11</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>
353, 353H	33 <sup>1</sup> / <sub>4</sub>	7 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>4</sub>	2	2 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
442, 443	31 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>4</sub>	5	8 <sup>1</sup> / <sub>4</sub>	1 <sup>13</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>
452, 453, 453H	35 <sup>15</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	9 <sup>1</sup> / <sub>4</sub>	5	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	2 <sup>9</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>
552, 552H										
553, 553H	39 <sup>5</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	11	6	10 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>
652, 652H										
652K	41	7 <sup>5</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>8</sub>	3	11 <sup>1</sup> / <sub>2</sub>	7	10 <sup>1</sup> / <sub>4</sub>	7 <sup>5</sup> / <sub>8</sub> (1)	2 <sup>3</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>

Size	AK	AQ	RG	Key	Z-Flow Only					
					G	I	M	AK	N	P
052, 053	18	9 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub> sq. x 1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	25 <sup>11</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>16</sub>
112, 113	21 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub> sq. x 1 <sup>9</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>4</sub>	—	9 <sup>9</sup> / <sub>16</sub>	28 <sup>7</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>2</sub>
122, 123	27 <sup>9</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub> sq. x 2 <sup>1</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>4</sub>	10 <sup>13</sup> / <sub>16</sub>	10	34 <sup>9</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	18 <sup>3</sup> / <sub>16</sub>
133	28 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>5</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>8</sub>	35 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	19 <sup>9</sup> / <sub>16</sub>
222, 223	27 <sup>5</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub> sq. x 2 <sup>1</sup> / <sub>16</sub>	9 <sup>7</sup> / <sub>8</sub>	13 <sup>9</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>16</sub>	35 <sup>3</sup> / <sub>16</sub>	4 <sup>15</sup> / <sub>16</sub>	20 <sup>15</sup> / <sub>16</sub>
232, 233	29 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>5</sup> / <sub>8</sub>	9 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	37 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>16</sub>
243	35 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	8	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>	9 <sup>7</sup> / <sub>8</sub>	13 <sup>9</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>	43 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>4</sub>
332, 333	34 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub> sq. x 3 <sup>5</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>8</sub>	17 <sup>13</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>16</sub>	40 <sup>15</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>2</sub>
342, 343	38 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	8	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>16</sub>	14 <sup>9</sup> / <sub>16</sub>	44 <sup>11</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	27 <sup>3</sup> / <sub>16</sub>
353, 353H	42 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub> sq. x 4 <sup>15</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>16</sub>	49 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	29 <sup>3</sup> / <sub>8</sub>
442, 443	42 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	8	5 <sup>5</sup> / <sub>8</sub> sq. x 3 <sup>15</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>16</sub>	49 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>4</sub>	31 <sup>1</sup> / <sub>4</sub>
452, 453, 453H	44 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub> sq. x 4 <sup>15</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	19 <sup>15</sup> / <sub>16</sub>	18 <sup>9</sup> / <sub>16</sub>	51 <sup>7</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>4</sub>	33 <sup>7</sup> / <sub>16</sub>
552, 552H										
553, 553H	50	1 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub> sq. x 4 <sup>15</sup> / <sub>16</sub>	19 <sup>5</sup> / <sub>8</sub>	25 <sup>5</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>2</sub>	59 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>8</sub>	39 <sup>9</sup> / <sub>16</sub>
652, 652H										
652K	57 <sup>11</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub> sq. x 4 <sup>15</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>4</sub>	27 <sup>5</sup> / <sub>8</sub>	20 <sup>15</sup> / <sub>16</sub>	60 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	41

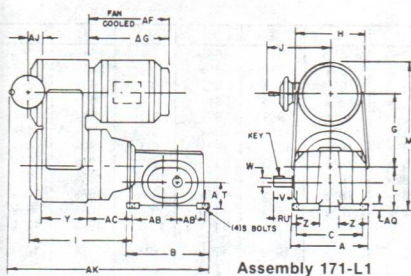
(1) AC Dimension for Z-Flow is 1<sup>15</sup>/<sub>16</sub>.

NOTE: Position F for handwheel control, on "Z" flow sizes 133, 233, 243, 342, 343, 452, 453 and 563 requires belt case No. 2; sizes 353 and 463 requires belt case No. 3

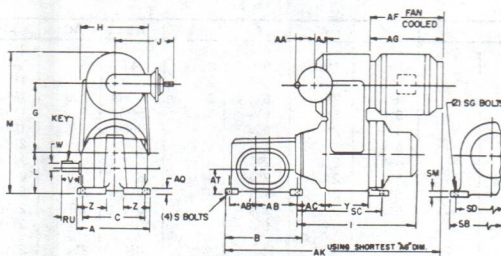
Dimensions for Estimating Purpose only. Consult your Reliance Distributor or Reliance Sales Office for Exact Dimensions.



## VERTICAL RIGHT ANGLE REDUCER



Assembly 171-L1

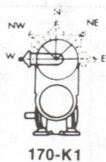


Assembly 171-A-L1

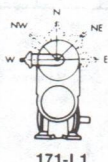
Size	SB	SC	SD	SG	SM
200	13	(2)	9 1/2	1/2	(2)
300	15 1/4	(3)	11 1/4	5/8	(3)

- (2) 2W21: SC = 15 5/8, SM = 1 1/8  
 2W28: SC = 16 3/8, SM = 2 5/8  
 (3) 3W28: SC = 20 3/16, SM = 2 7/8

"C" FLOW  
ASSEMBLIES

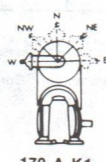


170-K1

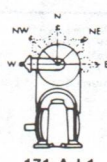


171-L1

"Z" FLOW  
ASSEMBLIES



170-A-K1



171-A-L1

# "C" AND "Z" FLOW

Size	A	B	C	G	H	I	J	L	M	S
05W12	5	5 1/4	4	6 1/2	6 7/16	10 1/8	59 1/16	33 1/4	13 1/8	5 1/16
05C12	6	8	5	6 1/2	6 7/16	10 1/8	59 1/16	4	13 3/8	5 1/16
05W16	5 1/2	6 7/8	4 1/2	6 1/2	6 7/16	9 5/16	59 1/16	4 1/2	13 7/8	3 5/8
1W16	5 1/2	6 7/8	4 1/2	7 3/4	8 1/2	12 1/16	6 7/8	4 1/2	16 3/16	3 5/8
1C16	7 3/4	10	6 1/2	7 3/4	8 1/2	12 1/16	6 7/8	5	16 1 1/16	3 5/8
1W21	8	8	7	7 3/4	8 1/2	12 1/16	6 7/8	6	17 1 1/16	3 5/8
1C21	9 1/4	12 1/4	8	7 3/4	8 1/2	12 1/16	6 7/8	6 5/8	18 5/8	1 1/2
1C28	11 1/8	16 1/8	9	7 3/4	8 1/2	13 1/16	6 7/8	8 5/8	20 5/8	5/8
2W21	8	8	7	9 7/8	9 3/4	15 1/16	8 3/4	6	20 7/8	3 5/8
2C21	9 1/4	12 1/4	8	9 7/8	9 3/4	15 1/16	8 3/4	6 5/8	21 1/8	1 1/2
2W28	9 1/2	9 3/4	8	9 7/8	9 3/4	16 3/16	8 3/4	7 1/2	21 5/16	1 1/2
2C28	11 1/8	16 1/8	9	9 7/8	9 3/4	15 7/8	8 3/4	8 5/8	23 1/16	5/8
2C40	15	20 7/8	12 1/2	9 7/8	9 1/4	19 1/16	8 3/4	11 1/2	25 1/16	1
3C21	9 1/4	12 1/4	8	12 3/8	11 7/8	19 1/16	10 7/8	6 5/8	24 1/2	1 1/2
3W28	9 1/2	9 3/4	8	12 3/8	11 7/8	18	10 7/8	7 1/2	25 3/8	1 1/2
3C28	11 1/8	16 1/8	9	12 3/8	11 7/8	19 1/16	10 7/8	8 5/8	26 1/2	5/8
3W40	12 3/4	13 3/4	11	12 3/8	11 7/8	22 1/4	10 7/8	10 3/4	28 5/8	7/8
3C40	15	20 7/8	12 1/2	12 3/8	11 7/8	22 1/4	10 7/8	11 1/2	29 3/8	1
4W40	12 3/4	13 3/4	11	15 1/4	14 1/4	26 3/16	13 5/8	10 3/4	32 1 1/16	7/8
4C40	15	20 7/8	12 1/2	15 1/4	14 1/4	26 3/16	13 5/8	11 1/2	33 1/16	1

Size	V	W	Y	Z	AA	AB	AB <sup>1</sup>	AC	AJ
05W12	1 1/16	3/4	4 1/4	1 7/16	1 9/16	2 1/8	2 1/8	4 5/8	13 1/16
05C12	2	7/8	4 1/4	2 1/8	1 9/16	4	3	4 3/4	13 1/16
05W16	2	7/8	4 1/4	1 3/4	1 9/16	3	3	4 9/16	13 1/16
1W16	2	7/8	5 1/4	1 3/4	2	3	3	5 1/16	7/8
1C16	2 1/2	1 1/8	5 1/4	3 1/8	2	5 1/2	3 1/2	6 1/16	7/8
1W21	2 1/2	1 1/8	5 1/4	2 5/8	2	3 1/2	3 1/2	6 3/16	7/8
1C21	3 1/4	1 1/2	5 1/4	3 1/2	2	7	4	6 3/16	7/8
1C28	4 9/16	2 1/8	5 1/4	4	2	9 1/16	4 1/16	6 13/16	7/8
2W21	2 1/2	1 1/8	6 1/4	2 5/8	3 1/8	3 1/2	3 1/2	7 1/16	19 1/16
2C21	3 1/4	1 1/2	6 1/4	3 1/2	3 1/8	7	4	7 1/16	19 1/16
2W28	3 1/4	1 1/2	6 1/4	3	3 1/8	4	4	8 7/16	19 1/16
2C28	4 9/16	2 1/8	6 1/4	4	3 1/8	9 1/16	4 1/16	8 1/8	19 1/16
2C40	5 1/2	2 5/8	6 1/4	4	3 1/8	11 7/8	6 5/8	11 5/16	19 1/16
3C21	3 1/4	1 1/2	7 3/4	3 1/2	4 3/16	7	4	9 1/2	13 1/4
3W28	3 1/4	1 1/2	7 3/4	3	4 3/16	4	4	10 1/4	13 1/4
3C28	4 9/16	2 1/8	7 3/4	4	4 3/16	9 1/16	4 1/16	9 15/16	13 1/4
3W40	4 1/2	2 7/8	7 3/4	3 3/8	4 3/16	6	6	12 1 1/16	13 1/4
3C40	5 1/2	2 5/8	7 3/4	4	4 3/16	11 7/8	6 5/8	12 1 1/16	13 1/4
4W40	4 1/2	2 7/8	9 1/4	3 3/8	5	6	6	14 1 1/16	27 1/16
4C40	5 1/2	2 5/8	9 1/4	4	5	11 7/8	6 5/8	14 1 1/16	27 1/16

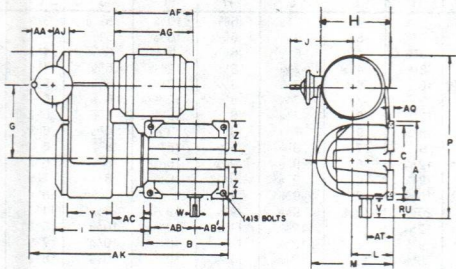
Z-Flow Only									
Size	AK	AQ	AT	RU	key	I	AC	AK	
05W12	16	9 1/8	2 1/4	2	3/16 sq. x 1	12 3/16	4 5/8	23 1 1/16	
05C12	18 1/8	1/2	2 1/2	2 5/8	3/16 sq. x 1 1/4	12 5/16	4 3/4	26 9/16	
05W16	17 9/16	5/8	2 1/2	2 5/16	3/16 sq. x 1 1/4	12 1 1/16	4 9/16	25 5/16	
1W16	20 1/2	5/8	2 1/2	2 5/16	3/16 sq. x 1 1/4	14 3/4	5 1/16	27 1/2	
1C16	23 1 1/16	5/8	3	2 7/8	1/4 sq. x 1 3/4	14 7/8	6 1/16	30 1 1/16	
1W21	21 13/16	5/8	3 3/8	2 1/2	1/4 sq. x 1 3/4	15	6 3/16	28 13/16	
1C21	25 15/16	3/4	4	4	3/8 sq. x 2 1/2	15	6 3/16	32 15/16	
1C28	30	1	5 1/8	6 1/16	1/2 sq. x 3	15 5/8	6 13/16	37	
2W21	26 1/8	5/8	3 3/8	2 1/2	1/4 sq. x 1 3/4	21 13/16	7 1 1/16	33 1 1/16	
2C21	30 1/4	3/4	4	4	3/8 sq. x 2 1/2	21 1/2	7 1 1/16	37 13/16	
2W28	28 1/4	7/8	4	3 7/8	3/8 sq. x 2 1/2	23 13/16	8 7/16	35 13/16	
2C28	34 3/8	1	5 1/8	6 1/16	1/2 sq. x 3	24 1 1/16	8 1/8	41 1 1/16	
2C40	41 15/16	1 1/4	6 1/2	7 1/16	5/8 sq. x 4	18 5/16	6 13/16	45	
3C21	34 13/16	3/4	4	4	3/8 sq. x 2 1/2	26 3/4	9 1/2	41 7/16	
3W28	32 13/16	7/8	4	3 7/8	3/8 sq. x 2 1/2	29 1/8	10 1/4	39 7/16	
3C28	38 5/8	1	5 1/8	6 1/16	1/2 sq. x 3	28 13/16	9 15/16	45 5/16	
3W40	39 1/4	1	5 3/4	5 1/8	1/2 sq. x 3 3/4	20 15/16	7 1/16	40 1/4	
3C40	46 1/4	1 1/4	6 1/2	7 1/16	5/8 sq. x 4	20 15/16	7 1/16	47 1/16	
4W40	44 1/4	1	5 3/4	5 1/8	1/2 sq. x 3 3/4	24 5/16	7 1/2	44 3/16	
4C40	51 1/4	1 1/4	6 1/2	7 1/16	5/8 sq. x 4	24 5/16	7 1/2	51	

NOTE: 05W12, 05C12, 05W16 available in handwheel locations W, N, E only.

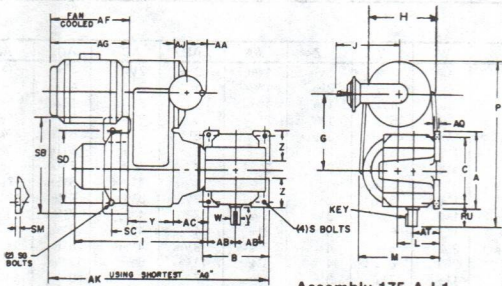
(1) 45° Assemblies available on sizes 100 thru 400.



HORIZONTAL RIGHT ANGLE REDUCER C-FLOW



Assembly 173-L1



Assembly 175-A-L1

Size	SB	SC	SD	SG	SM
200	13	(3)	9 1/2	1/2	(3)
300	15 1/4	(4)	11 1/4	5/8	(4)

- (3) 2W21: SC = 15 5/8, SM = 1 1/8.  
2W28: SC = 16 3/8, SM = 2 5/8.  
(4) 3W28: SC = 20 3/16, SM = 2 1/8.

"C" FLOW ASSEMBLIES



173-L1



174-K1

"Z" FLOW ASSEMBLIES



172-A-K1



173-A-L1



174-A-K1



175-A-L1

**"C" AND "Z" FLOW**

Size	A	B	C	G	H	I	J	L	M	P
05W12	5	5 1/4	4	6 1/2	6 7/16	10 1/8	5 9/16	3 3/4	7	13 3/8
05C12	6	8	5	6 1/2	6 7/16	10 1/8	5 9/16	4	7 1/4	14 1/2
05W16	5 1/2	6 7/8	4 1/2	6 1/2	6 7/16	9 15/16	5 9/16	4 1/2	7 3/4	13 15/16
1W16	5 1/2	6 7/8	4 1/2	7 3/4	8 1/2	12 9/16	6 7/8	4 1/2	9	16 1/4
1C16	7 3/4	10	6 1/2	7 3/4	8 1/2	11 11/16	6 7/8	5	9 1/2	17 13/16
1W21	8	8	7	7 3/4	8 1/2	12 13/16	6 7/8	6	10 1/2	17 11/16
1C21	9 1/4	12 1/4	8	10 1/2	8 1/2	12 13/16	6 7/8	6 5/8	11 1/8	22 7/16
1C28	11 1/8	16 1/8	9	10 1/2	8 1/2	13 7/16	6 7/8	8 5/8	13 1/8	25
2W21	8	8	7	9 7/8	9 3/4	15 7/16	8 3/4	6	11 1/2	20 7/16
2C21	9 1/4	12 1/4	8	9 7/8	9 3/4	15 7/16	8 3/4	6 5/8	12 1/8	22 7/16
2W28	9 1/2	9 3/4	8	9 7/8	9 3/4	16 3/16	8 3/4	7 1/2	13	22 5/16
2C28	11 1/8	16 1/8	9	11 1/2	9 3/4	15 7/8	8 3/4	8 5/8	14 1/8	26 5/16
2C40	15	20 7/8	12 1/2	13	9 3/4	19 1/16	8 3/4	11 1/2	17	30 7/8
3C21	9 1/4	12 1/4	8	12 3/8	11 7/8	19 1/16	10 7/8	6 5/8	13 3/8	25 7/8
3W28	9 1/2	9 3/4	8	12 3/8	11 7/8	18	10 7/8	7 1/2	14	25 3/4
3C28	11 1/8	16 1/8	9	12 3/8	11 7/8	19 1/2	10 7/8	8 5/8	15 1/8	28 7/16
3W40	12 3/4	13 3/4	11	13 3/4	11 7/8	22 1/4	10 7/8	10 3/4	17 1/4	29 7/8
3C40	15	20 7/8	12 1/2	13 3/4	11 7/8	22 1/4	10 7/8	11 1/2	18	32 5/16
4W40	15 3/4	13 3/4	11	15 1/4	14 1/4	26 3/16	13 3/8	10 3/4	18 11/16	32 9/16
4C40	15	20 7/8	12 1/2	15 1/4	14 1/4	26 3/16	13 3/8	11 1/2	19 7/16	35 1/4

Size	S	V	W	Y	Z	AA	AB	AB <sup>1</sup>	AC	AJ
05W12	5/16	11/16	3/4	4 1/4	17/16	1 9/16	2 1/8	2 1/8	4 5/8	13 1/8
05C12	5/16	2	7/8	4 1/4	2 1/8	1 9/16	4	3	4 3/4	13 1/8
05W16	3/8	2	7/8	4 1/4	1 3/4	1 9/16	3	3	4 9/16	13 1/8
1W16	3/8	2	7/8	5 1/4	1 3/4	2	3	3	5 15/16	7/8
1C16	3/8	2 1/2	1 1/8	5 1/4	3 1/8	2	5 1/2	3 1/2	6 1/8	7/8
1W21	3/8	2 1/2	1 1/8	5 1/4	2 5/8	2	3 1/2	3 1/2	6 3/8	7/8
1C21	1/2	3 1/4	1 1/2	5 1/4	3 1/2	2	7	4	6 3/8	7/8
1C28	5/8	4 9/16	2 1/8	5 1/4	4	2	9 1/4	4 15/16	6 13/16	7/8
2W21	3/8	2 1/2	1 1/8	6 1/4	2 5/8	3 1/8	3 1/2	3 1/2	7 11/16	1 9/16
2C21	1/2	3 1/4	1 1/2	6 1/4	3 1/2	3 1/8	7	4	7 11/16	1 9/16
2W28	1/2	3 1/4	1 1/2	6 1/4	3	3 1/8	4	4	8 7/8	1 9/16
2C28	5/8	4 9/16	2 1/8	6 1/4	4	3 1/8	9 1/4	4 15/16	8 7/8	1 9/16
2C40	1	5 1/2	2 5/8	6 1/4	4	3 1/8	11 7/8	6 5/8	11 3/8	1 9/16
3C21	1/2	3 1/4	1 1/2	7 3/4	3 1/2	4 3/16	7	4	9 1/2	1 3/4
3W28	1/2	3 1/4	1 1/2	7 3/4	3	4 3/16	4	4	10 1/4	1 3/4
3C28	5/8	4 9/16	2 1/8	7 3/4	4	4 3/16	9 1/4	4 15/16	9 15/16	1 3/4
3W40	7/8	4 1/2	2 5/8	7 3/4	3 5/8	4 3/16	6	6	12 11/16	1 3/4
3C40	1	5 1/2	2 5/8	7 3/4	4	4 3/16	11 7/8	6 5/8	12 11/16	1 3/4
4W40	7/8	4 1/2	2 5/8	9 1/4	3 5/8	5	6	6	14 11/16	2 7/8
4C40	1	5 1/2	2 5/8	9 1/4	4	5	11 7/8	6 5/8	14 11/16	2 7/8

Size	AK	AQ	AT	RU	Key	Z-Flow Only			
						I	AC	AK	P
05W12	16	9/16	2 1/4	2	3/16 sq. x 1	12 3/16	4 5/8	23 11/16	13 3/8
05C12	18 7/8	1/2	2 1/2	2 5/8	3/16 sq. x 1 1/4	12 5/16	4 3/4	26 9/16	14 1/2
05W16	17 9/16	5/8	2 1/2	2 5/8	3/16 sq. x 1 1/4	12 1/16	4 9/16	25 5/16	13 9/16
1W16	20 1/2	5/8	2 1/2	2 5/8	3/16 sq. x 1 1/4	14 3/4	5 15/16	27 1/2	16 1/4
1C16	23 11/16	5/8	3	2 7/8	1/4 sq. x 1 3/4	14 7/8	6 1/16	30 11/16	17 13/16
1W21	21 13/16	5/8	3 3/8	2 1/2	1/4 sq. x 1 3/4	15	6 3/16	28 13/16	17 11/16
1C21	25 15/16	3/4	4	4	3/8 sq. x 2 1/2	15	6 9/16	32 15/16	19 11/16
1C28	30	1	5 1/8	6 1/16	1/2 sq. x 3	15 5/8	6 13/16	37	22 1/4
2W21	26 1/8	5/8	3 3/8	2 1/2	1/4 sq. x 1 3/4	21 13/16	7 11/16	33 11/16	20 7/8
2C21	30 1/4	3/4	4	4	3/8 sq. x 2 1/2	21 1/2	7 15/16	37 3/8	22 7/8
2W28	28 1/4	7/8	4	3 7/8	3/8 sq. x 3	23 3/16	8 1/8	35 3/16	22 1/4
2C28	34 1/8	1	5 1/8	6 1/16	1/2 sq. x 3	24 11/16	8 1/8	41 11/16	25
2C40	41 15/16	1 1/4	6 1/2	7 1/16	1/2 sq. x 3 3/4	18 7/8	6 13/16	45	27 3/4
3C21	34 13/16	3/4	4	4	3/8 sq. x 2 1/2	26 3/4	9 1/2	47 1/16	25 7/8
3W28	32 5/8	7/8	4	3 7/8	3/8 sq. x 2 1/2	29 1/2	10 1/4	39 7/8	25 3/4
3C28	38 5/8	1	5 1/8	6 1/16	1/2 sq. x 3	28 3/16	9 15/16	45 5/16	28 7/8
3W40	39 1/4	1	5 3/4	5 1/8	1/2 sq. x 3 3/4	20 5/16	7 15/16	40 1/4	24 1/4
3C40	46 1/4	1 1/4	6 1/2	7 1/16	5/8 sq. x 4	20 5/16	7 15/16	47 1/16	25 3/8
4W40	44 1/4	1	5 3/4	5 1/8	1/2 sq. x 3 3/4	24 5/16	7 1/2	44 3/16	28 5/8
4C40	51 1/4	1 1/4	6 1/2	7 1/16	5/8 sq. x 4	24 5/16	7 1/2	51	29 7/8

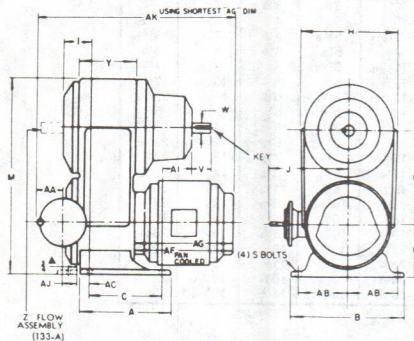
- (1) "C" flow only — 1C21 and 1C28 — "G" = 10 1/2;  
 (2) "C" flow only — 2C28 — "G" = 11 1/2.



# Dimensions

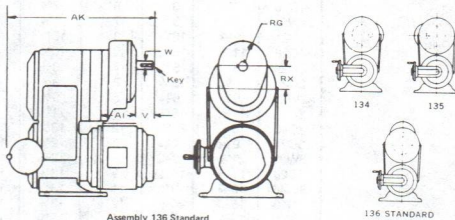
## Inverted Vertical

### "C" AND "Z" FLOW — NO REDUCER SIZES 100 THRU 600 K



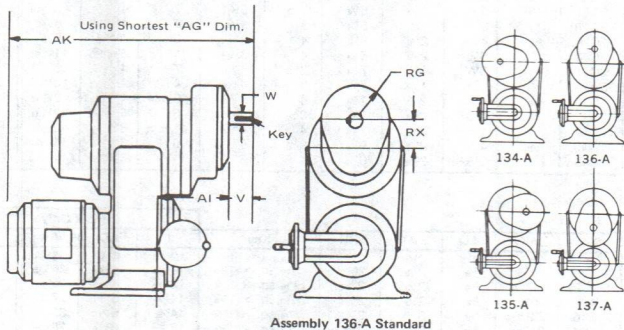
Assembly 133 Standard

### "C" FLOW — SINGLE REDUCER SIZES 111 THRU 661K



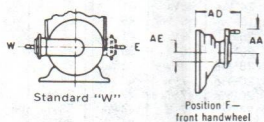
Assembly 136 Standard

### "Z" FLOW — SINGLE REDUCER — SIZES 111 THRU 661K



Assembly 136-A Standard

**HANDWHEEL CONTROL LOCATION** — Standard position W will be furnished unless optional E or F is specified on order.



### "Handwheel location F (front)"

Units	100	200	300	400	500	600
AD	5¼	6¾	8½	12⅝	13⅞	14⅞
AE	1⅞	1⅞	1⅞	3⅞	3⅞	3⅞

Size	A	B	C	G	H	I	J	L	M	S	V	W	Y	AA	AB	AC	AI	AJ
100											2 <sup>5</sup> / <sub>16</sub>	3/4					9/16	
111	10 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	9	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	1/2	2	1 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>4</sub>	(2)	3 <sup>3</sup> / <sub>4</sub>	▲	2 <sup>3</sup> / <sub>32</sub>	7/8
121											2 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>					3 <sup>25</sup> / <sub>32</sub>	
200											2 <sup>7</sup> / <sub>8</sub>	1					2 <sup>7</sup> / <sub>16</sub>	
221	10 <sup>3</sup> / <sub>4</sub>	13	8 <sup>1</sup> / <sub>2</sub>	9 <sup>7</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>8</sub>	2 <sup>13</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>16</sub>	1/2	2 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	(2)	5 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>
231											3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>					5 <sup>15</sup> / <sub>16</sub>	
300											3 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>					2 <sup>7</sup> / <sub>8</sub>	
331	13 <sup>5</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>8</sub>	3	10 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>4</sub>	5/8	3 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
341											4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>					7 <sup>3</sup> / <sub>4</sub>	
400											4 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>					1 <sup>5</sup> / <sub>8</sub>	
441	17 <sup>7</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	15 <sup>5</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>4</sub>	15 <sup>5</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>16</sub>	13 <sup>19</sup> / <sub>32</sub>	7 <sup>29</sup> / <sub>32</sub>	30 <sup>2</sup> / <sub>32</sub>	3/4	4 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>32</sub>	8 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	5 <sup>15</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>32</sub>
451											5 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>					7 <sup>1</sup> / <sub>8</sub>	
500											5 <sup>5</sup> / <sub>8</sub>	2					2 <sup>3</sup> / <sub>4</sub>	
551	20 <sup>1</sup> / <sub>2</sub>	23	18	19 <sup>5</sup> / <sub>8</sub>	19 <sup>5</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	38 <sup>5</sup> / <sub>16</sub>	7/8	5 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	11	6 <sup>1</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	7 <sup>5</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>32</sub>
561											5 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>					8 <sup>7</sup> / <sub>8</sub>	
600											7	2 <sup>3</sup> / <sub>8</sub>					1 <sup>5</sup> / <sub>8</sub>	
600K	24 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>2</sub>	22	20 <sup>3</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>4</sub>	4 <sup>9</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	10 <sup>7</sup> / <sub>32</sub>	40 <sup>23</sup> / <sub>32</sub>	7/8	7	2 <sup>3</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	4 <sup>23</sup> / <sub>32</sub>
661											5 <sup>5</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>					6 <sup>3</sup> / <sub>4</sub>	

Z-Flow Only							
Size	AK	RG	RX	Key	I	AI	AK
100	18 <sup>3</sup> / <sub>4</sub>	—	—	3/16 × 3/16 × 1 <sup>3</sup> / <sub>4</sub>		5/8	18
111	17 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	2.4	1/4 × 1/4 × 1 <sup>3</sup> / <sub>16</sub>	9/16	3 <sup>13</sup> / <sub>16</sub> (1)	21 <sup>11</sup> / <sub>16</sub> (1)
121	17 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	2.75	5/16 × 5/16 × 2		5 <sup>1</sup> / <sub>2</sub> (1)	24 <sup>5</sup> / <sub>16</sub> (1)
200	20 <sup>27</sup> / <sub>32</sub>	—	—	1/4 × 1/4 × 2 <sup>1</sup> / <sub>16</sub>		2 <sup>13</sup> / <sub>16</sub>	23 <sup>3</sup> / <sub>16</sub>
221	22 <sup>13</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>2</sub>	2.75	5/16 × 5/16 × 2	27/16	8 <sup>1</sup> / <sub>16</sub>	28 <sup>5</sup> / <sub>8</sub>
231	24 <sup>1</sup> / <sub>32</sub>	4 <sup>1</sup> / <sub>8</sub>	3.44	3/8 × 3/8 × 2 <sup>1</sup> / <sub>16</sub>		8 <sup>15</sup> / <sub>16</sub>	29 <sup>3</sup> / <sub>4</sub>
300	26	—	—	1/4 × 1/4 × 2 <sup>3</sup> / <sub>16</sub>		3	—
331	27 <sup>15</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>8</sub>	3.44	3/8 × 3/8 × 2 <sup>1</sup> / <sub>16</sub>	27/8	9 <sup>3</sup> / <sub>16</sub>	31 <sup>15</sup> / <sub>16</sub>
341	30 <sup>9</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	4.25	1/2 × 1/2 × 3 <sup>3</sup> / <sub>8</sub>		10 <sup>7</sup> / <sub>16</sub>	33 <sup>5</sup> / <sub>16</sub>
400	33 <sup>3</sup> / <sub>16</sub>	—	—	3/8 × 3/8 × 3 <sup>7</sup> / <sub>16</sub>		3 <sup>7</sup> / <sub>16</sub>	—
441	34 <sup>13</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	4.25	1/2 × 1/2 × 3 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	10 <sup>19</sup> / <sub>16</sub>	37 <sup>13</sup> / <sub>16</sub>
451	36 <sup>3</sup> / <sub>4</sub>	5 <sup>7</sup> / <sub>8</sub>	5.12	5/8 × 5/8 × 3 <sup>15</sup> / <sub>16</sub>		12	39 <sup>3</sup> / <sub>4</sub>
500	39 <sup>9</sup> / <sub>16</sub>	—	—	1/2 × 1/2 × 4 <sup>3</sup> / <sub>4</sub>		4 <sup>7</sup> / <sub>16</sub>	—
551	41 <sup>3</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	5.12	5/8 × 5/8 × 3 <sup>15</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	12 <sup>19</sup> / <sub>16</sub>	46 <sup>1</sup> / <sub>4</sub>
561	43 <sup>11</sup> / <sub>16</sub>	7	6.20	3/4 × 3/4 × 4 <sup>5</sup> / <sub>8</sub>		16	50 <sup>1</sup> / <sub>8</sub>
600	43 <sup>5</sup> / <sub>8</sub>	—	—	5/8 × 5/8 × 5 <sup>7</sup> / <sub>8</sub>		4 <sup>9</sup> / <sub>16</sub>	—
600K	43 <sup>5</sup> / <sub>8</sub>	—	—	5/8 × 5/8 × 5 <sup>7</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	4 <sup>9</sup> / <sub>16</sub>	—
661	47 <sup>7</sup> / <sub>8</sub>	7	6.20	3/4 × 3/4 × 4 <sup>5</sup> / <sub>8</sub>		14 <sup>5</sup> / <sub>8</sub>	50 <sup>7</sup> / <sub>8</sub>

(1) Add "I" to "AI" and "AK" for assembly 137A.

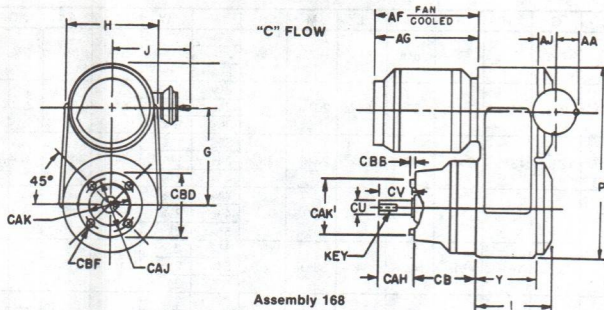
(2) Refer to Handwheel Dimension Table.



# Dimensions

## NEMA "C" FACE

Vertical Shaft Down — No Reducer — For AF and AG Dimensions Refer to Listings



Assembly 168

Size	Output Mounting	G	H	I	J	P	Y	AA	AJ	CB (1)	CU	CV
050	56C(4)	6 $\frac{1}{2}$	6 $\frac{7}{16}$	5 $\frac{3}{8}$	5 $\frac{9}{16}$	12 $\frac{1}{4}$	4 $\frac{1}{4}$	1 $\frac{9}{16}$	1 $\frac{3}{16}$	2 $\frac{1}{4}$	$\frac{5}{8}$	1 $\frac{15}{16}$
100	56C(4)	7 $\frac{3}{4}$	8 $\frac{1}{2}$	6 $\frac{5}{8}$	6 $\frac{7}{8}$	15 $\frac{5}{8}$	5 $\frac{1}{4}$	2	$\frac{7}{8}$	3 $\frac{1}{2}$	$\frac{5}{8}$	1 $\frac{7}{8}$
100	140TC(4)	7 $\frac{3}{4}$	8 $\frac{1}{2}$	6 $\frac{5}{8}$	6 $\frac{7}{8}$	15 $\frac{5}{8}$	5 $\frac{1}{4}$	2	$\frac{7}{8}$	4 $\frac{5}{8}$	$\frac{7}{8}$	2 $\frac{3}{8}$
200	140TC	9 $\frac{7}{8}$	9 $\frac{3}{4}$	7 $\frac{3}{4}$	8 $\frac{3}{4}$	19 $\frac{9}{16}$	6 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{9}{16}$	5 $\frac{1}{2}$	$\frac{7}{8}$	2 $\frac{3}{16}$
200	180TC	9 $\frac{7}{8}$	9 $\frac{3}{4}$	7 $\frac{3}{4}$	8 $\frac{3}{4}$	19 $\frac{9}{16}$	6 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{9}{16}$	7	1 $\frac{1}{8}$	2 $\frac{7}{8}$
300	180TC	12 $\frac{3}{8}$	11 $\frac{7}{8}$	9 $\frac{9}{16}$	10 $\frac{7}{8}$	24	7 $\frac{3}{4}$	4 $\frac{3}{16}$	1 $\frac{3}{4}$	7	1 $\frac{1}{8}$	3
300	210TC	12 $\frac{3}{8}$	11 $\frac{7}{8}$	9 $\frac{9}{16}$	10 $\frac{7}{8}$	24	7 $\frac{3}{4}$	4 $\frac{3}{16}$	1 $\frac{3}{4}$	7	1 $\frac{3}{8}$	3 $\frac{3}{8}$

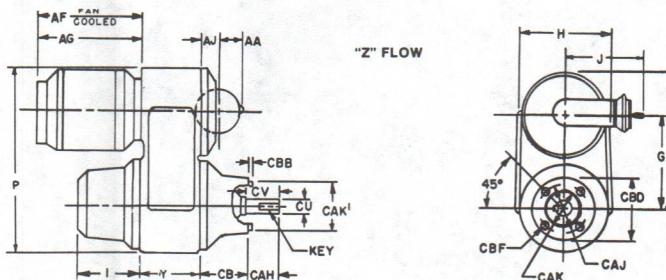
										Z-Flow Only	
Size	CAH	CAJ	CAK	CAK'	CBB	CBD	CBF	Key		I	CB (2)
050	2 $\frac{1}{16}$	5 $\frac{7}{8}$	4 $\frac{1}{2}$	—	$\frac{1}{8}$	6 $\frac{1}{2}$	$\frac{3}{8}$ -16	$\frac{3}{16}$ sq. $\times$ 1 $\frac{3}{8}$		3 $\frac{9}{16}$	2 $\frac{1}{4}$ (3)
100	2 $\frac{1}{16}$	5 $\frac{7}{8}$	4 $\frac{1}{2}$	—	$\frac{1}{8}$	6 $\frac{1}{2}$	$\frac{3}{8}$ -16	$\frac{3}{16}$ sq. $\times$ 1 $\frac{3}{8}$		3 $\frac{9}{16}$	3 $\frac{1}{2}$
100	2 $\frac{1}{8}$	5 $\frac{7}{8}$	4 $\frac{1}{2}$	—	$\frac{3}{16}$	6 $\frac{5}{8}$	$\frac{3}{8}$ -16	$\frac{3}{16}$ sq. $\times$ 1 $\frac{3}{8}$		3 $\frac{9}{16}$	4 $\frac{5}{8}$ (3)
200	2 $\frac{1}{8}$	5 $\frac{7}{8}$	4 $\frac{1}{2}$	—	$\frac{3}{16}$	6 $\frac{5}{8}$	$\frac{3}{8}$ -16	$\frac{3}{16}$ sq. $\times$ 1 $\frac{3}{8}$		6	3 $\frac{5}{8}$
200	2 $\frac{5}{8}$	7 $\frac{1}{4}$	—	8 $\frac{1}{2}$	$\frac{1}{4}$	9	$\frac{1}{2}$ -13	$\frac{1}{4}$ sq. $\times$ 1 $\frac{3}{4}$		6	5 $\frac{1}{8}$
300	2 $\frac{5}{8}$	7 $\frac{1}{4}$	—	8 $\frac{1}{2}$	$\frac{1}{4}$	9	$\frac{1}{2}$ -13	$\frac{1}{4}$ sq. $\times$ 1 $\frac{3}{4}$		7 $\frac{5}{8}$	4 $\frac{3}{8}$
300	3 $\frac{1}{8}$	7 $\frac{1}{4}$	—	8 $\frac{1}{2}$	$\frac{1}{4}$	9	$\frac{1}{2}$ -13	$\frac{5}{16}$ sq. $\times$ 2 $\frac{3}{8}$		7 $\frac{5}{8}$	4 $\frac{3}{8}$

(1) Extended Assembly—Add 7 $\frac{1}{2}$  (050), 7 $\frac{1}{2}$  (100), 9 $\frac{1}{4}$  (200) or 11 (300) to CB Dimension.

(2) Extended Assembly—Add 1 $\frac{1}{8}$  (200) or 2 $\frac{5}{8}$  (300) to CB Dimension.

(3) Not available in Extended Assembly.

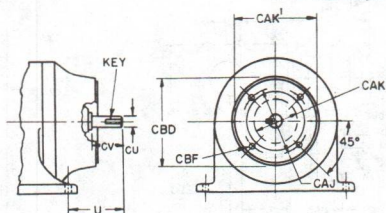
(4) Not available in Assembly 168-EA.



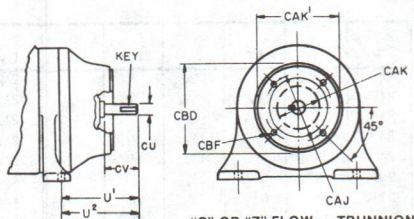
Assembly 168-A

## FOOT MOUNTING WITH NEMA C-FACE OUTPUT

Add prefix "C" to assembly number  
for C-Face output mounting.



"C" OR "Z" FLOW — STANDARD



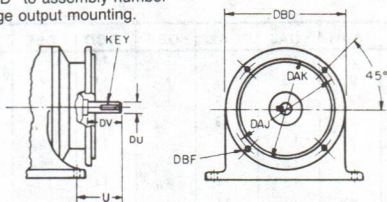
"C" OR "Z" FLOW — TRUNNION

For foot-mounted MOTO DRIVE  
no reducer—sizes 050, 100, 200, 300

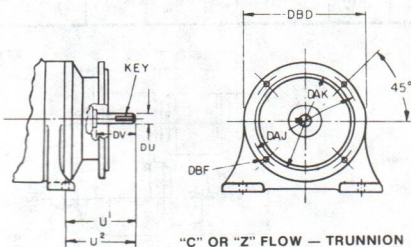
Size	Output Mtg.	U	U <sup>1</sup> "Z"	U <sup>2</sup> "C"
050	56C	3 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>
100	56C	5 <sup>9</sup> / <sub>16</sub>	6	6
100	140TC	6 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>
200	180TC	3 <sup>25</sup> / <sub>32</sub>	5 <sup>19</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>16</sub>
200	140TC	4 <sup>1</sup> / <sub>2</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>9</sup> / <sub>16</sub>
300	180TC	4	6 <sup>1</sup> / <sub>16</sub>	8 <sup>9</sup> / <sub>16</sub>
300	210TC	4 <sup>1</sup> / <sub>2</sub>	7 <sup>9</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>

## FOOT MOUNTING WITH NEMA D-FLANGE OUTPUT

Add prefix "D" to assembly number  
for "D" flange output mounting.



"C" OR "Z" FLOW — STANDARD



"C" OR "Z" FLOW — TRUNNION

For foot-mounted MOTO DRIVE  
no reducer—sizes 100 thru 600K

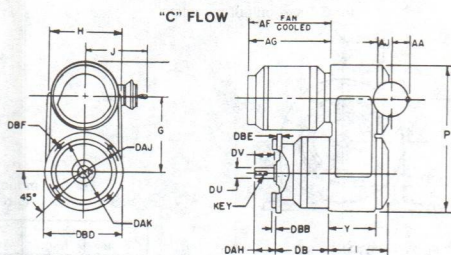
Size	Output Mtg.	U	U <sup>1</sup> "Z"	U <sup>2</sup> "C"
100	140TD	6	6 <sup>1</sup> / <sub>16</sub>	5
200	140TD	3 <sup>1</sup> / <sub>4</sub>	5 <sup>9</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>
200	180TD	3 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>16</sub>	7 <sup>9</sup> / <sub>16</sub>
300	180TD	4 <sup>1</sup> / <sub>8</sub>	6 <sup>13</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>
300	210TD	4 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>16</sub>	9 <sup>9</sup> / <sub>16</sub>
400	250TD	7 <sup>1</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>16</sub>
500	250TD	10 <sup>7</sup> / <sub>16</sub>	14 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>2</sub>
500	280TD	11 <sup>1</sup> / <sub>16</sub>	15 <sup>3</sup> / <sub>8</sub>	15 <sup>3</sup> / <sub>8</sub>
500	320TD	11 <sup>1</sup> / <sub>16</sub>	16	16
600	320TD	12 <sup>5</sup> / <sub>16</sub>	17 <sup>5</sup> / <sub>8</sub>	17 <sup>5</sup> / <sub>8</sub>



# Dimensions

## NEMA "D" FLANGE

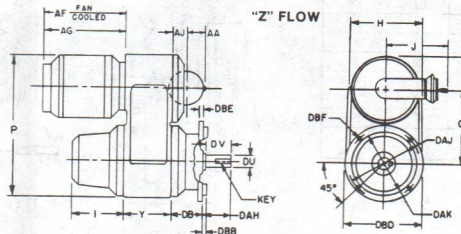
Vertical Shaft Down — No Reducer — For AF and AG Dimensions Refer to Listings



Assembly 185

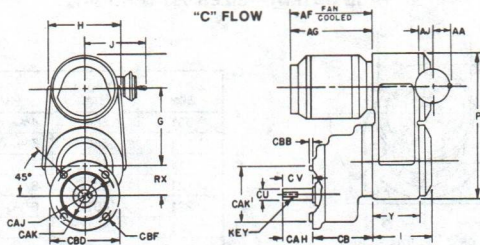
Size	Output Mounting	G	H	I	J	P	Y	AA	AJ	DB	DU	DV
100	140TD	10 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	18 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>8</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	7 <sup>8</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>
200	140TD	11 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	21 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>
200	180TD	11 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	21 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>
300	180TD	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	24	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	7	1 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>
300	210TD	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	24	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	7	1 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>
400	250TD	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>8</sub>	29 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	5	2 <sup>7</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>	4
500	250TD	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>8</sub>	11	6	3 <sup>7</sup> / <sub>16</sub>	11	1 <sup>5</sup> / <sub>8</sub>	4
500	280TD	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>8</sub>	11	6	3 <sup>7</sup> / <sub>16</sub>	11	1 <sup>7</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>
500	320TD	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>8</sub>	11	6	3 <sup>7</sup> / <sub>16</sub>	11	2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
600	320TD	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	14 <sup>9</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	39 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	7	4 <sup>3</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>

										Z-Flow Only	
Size	DAH	DAJ	DAK	DBB	DBD	DBE	DBF	Key		I	DB
100	2 <sup>1</sup> / <sub>4</sub>	10	9	3 <sup>1</sup> / <sub>16</sub>	11	1 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>16</sub> sq x 1 <sup>3</sup> / <sub>8</sub>		3 <sup>9</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>
200	2 <sup>1</sup> / <sub>4</sub>	10	9	3 <sup>1</sup> / <sub>16</sub>	11	9 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>16</sub> sq x 1 <sup>3</sup> / <sub>8</sub>		6	3 <sup>1</sup> / <sub>2</sub>
200	2 <sup>3</sup> / <sub>4</sub>	10	9	3 <sup>1</sup> / <sub>16</sub>	11	9 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub> sq x 1 <sup>3</sup> / <sub>4</sub>		6	3 <sup>1</sup> / <sub>2</sub>
300	2 <sup>3</sup> / <sub>4</sub>	10	9	3 <sup>1</sup> / <sub>16</sub>	11	5 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub> sq x 1 <sup>3</sup> / <sub>4</sub>		7 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>
300	3 <sup>3</sup> / <sub>8</sub>	10	9	3 <sup>1</sup> / <sub>16</sub>	11	5 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>16</sub> sq x 2 <sup>1</sup> / <sub>8</sub>		7 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>
400	4	12 <sup>1</sup> / <sub>2</sub>	11	3 <sup>1</sup> / <sub>16</sub>	14	3 <sup>1</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub> sq x 2 <sup>7</sup> / <sub>8</sub>		9 <sup>7</sup> / <sub>16</sub>	7 <sup>5</sup> / <sub>8</sub>
500	4	12 <sup>1</sup> / <sub>2</sub>	11	3 <sup>1</sup> / <sub>16</sub>	14	1	13 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub> sq x 2 <sup>7</sup> / <sub>8</sub>		11 <sup>3</sup> / <sub>8</sub>	11
500	4 <sup>5</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>2</sub>	11	3 <sup>1</sup> / <sub>16</sub>	14	1	13 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub> sq x 3 <sup>1</sup> / <sub>4</sub>		11 <sup>3</sup> / <sub>8</sub>	11
500	5 <sup>1</sup> / <sub>4</sub>	16	14	3 <sup>1</sup> / <sub>16</sub>	18	1	13 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub> sq x 3 <sup>7</sup> / <sub>8</sub>		11 <sup>3</sup> / <sub>8</sub>	11
600	5 <sup>1</sup> / <sub>4</sub>	16	14	3 <sup>1</sup> / <sub>16</sub>	18	1	13 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub> sq x 3 <sup>7</sup> / <sub>8</sub>		13 <sup>11</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>8</sub>



Assembly 185-A

## NEMA "C"-FACE VERTICAL SHAFT DOWN — SINGLE REDUCER

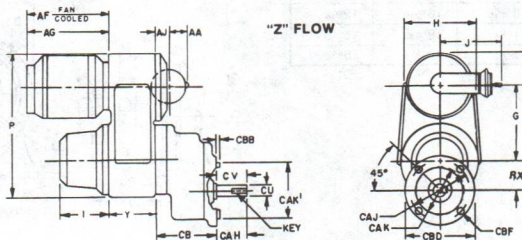


Assembly 167

Size	Output Mounting	G	H	I	J	P	Y	AA	AJ	CB	CU	CV
051	56C	6 $\frac{1}{2}$	6 $\frac{7}{16}$	5 $\frac{3}{8}$	5 $\frac{9}{16}$	12 $\frac{1}{4}$	4 $\frac{1}{4}$	1 $\frac{9}{16}$	1 $\frac{3}{16}$	4 $\frac{1}{8}$	5 $\frac{3}{8}$	2 $\frac{1}{16}$
111(2)	56C	7 $\frac{3}{4}$	8 $\frac{1}{2}$	6 $\frac{5}{8}$	6 $\frac{7}{8}$	15 $\frac{5}{8}$	5 $\frac{1}{4}$	2	7 $\frac{7}{8}$	5 $\frac{5}{8}$	5 $\frac{3}{8}$	2 $\frac{1}{8}$
111(2)	140TC	7 $\frac{3}{4}$	8 $\frac{1}{2}$	6 $\frac{5}{8}$	6 $\frac{7}{8}$	15 $\frac{5}{8}$	5 $\frac{1}{4}$	2	7 $\frac{7}{8}$	5 $\frac{5}{8}$	7 $\frac{1}{8}$	2 $\frac{3}{8}$
121	140TC	7 $\frac{3}{4}$	8 $\frac{1}{2}$	6 $\frac{5}{8}$	6 $\frac{7}{8}$	15 $\frac{5}{8}$	5 $\frac{1}{4}$	2	7 $\frac{7}{8}$	8 $\frac{3}{16}$	7 $\frac{1}{8}$	3 $\frac{3}{16}$
221	140TC	9 $\frac{7}{8}$	9 $\frac{3}{4}$	7 $\frac{3}{4}$	8 $\frac{3}{4}$	19 $\frac{9}{16}$	6 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{9}{16}$	10 $\frac{1}{16}$	7 $\frac{1}{8}$	3 $\frac{3}{16}$
221	180TC	9 $\frac{7}{8}$	9 $\frac{3}{4}$	7 $\frac{3}{4}$	8 $\frac{3}{4}$	19 $\frac{9}{16}$	6 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{9}{16}$	10 $\frac{1}{4}$	1 $\frac{1}{8}$	3
231	180TC	9 $\frac{7}{8}$	9 $\frac{3}{4}$	7 $\frac{3}{4}$	8 $\frac{3}{4}$	19 $\frac{9}{16}$	6 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{9}{16}$	10 $\frac{3}{8}$	1 $\frac{1}{8}$	3 $\frac{7}{16}$
331	180TC	12 $\frac{3}{8}$	11 $\frac{7}{8}$	9 $\frac{9}{16}$	10 $\frac{7}{8}$	24	7 $\frac{3}{4}$	4 $\frac{3}{16}$	1 $\frac{3}{4}$	11 $\frac{1}{4}$	1 $\frac{1}{8}$	3 $\frac{1}{16}$
331	210TC	12 $\frac{3}{8}$	11 $\frac{7}{8}$	9 $\frac{9}{16}$	10 $\frac{7}{8}$	24	7 $\frac{3}{4}$	4 $\frac{3}{16}$	1 $\frac{3}{4}$	11 $\frac{3}{4}$	1 $\frac{3}{8}$	3 $\frac{15}{16}$
341	210TC	12 $\frac{3}{8}$	11 $\frac{7}{8}$	9 $\frac{9}{16}$	10 $\frac{7}{8}$	24	7 $\frac{3}{4}$	4 $\frac{3}{16}$	1 $\frac{3}{4}$	13 $\frac{3}{8}$	1 $\frac{3}{8}$	3 $\frac{7}{16}$

											Z-Flow Only	
Size	CAH	CAJ	CAK	CAK'	CBB	CBD	CBF	RX	Key	I	CB (1)	
051	2 <sup>1</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	—	<sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub> -16	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub> sq × 1 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	
111(2)	2 <sup>1</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	—	<sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub> -16	2 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub> sq × 1 <sup>3</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	
111(2)	2 <sup>1</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	—	<sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub> -16	2 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub> sq × 1 <sup>9</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	
121	2 <sup>1</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	—	<sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub> -16	2 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub> sq × 2	3 <sup>9</sup> / <sub>16</sub>	7 <sup>11</sup> / <sub>16</sub>	
221	2 <sup>1</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	—	<sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	3 <sup>5</sup> / <sub>8</sub> -16	2 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub> sq × 2	6	8 <sup>3</sup> / <sub>16</sub>	
221	2 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	—	8 <sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>4</sub>	9	<sup>1</sup> / <sub>2</sub> -13	2 <sup>3</sup> / <sub>4</sub>	<sup>1</sup> / <sub>4</sub> sq × 1 <sup>3</sup> / <sub>4</sub>	6	8 <sup>3</sup> / <sub>8</sub>	
231	2 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	—	8 <sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>4</sub>	9	<sup>1</sup> / <sub>2</sub> -13	3 <sup>1</sup> / <sub>16</sub>	<sup>1</sup> / <sub>4</sub> sq × 1 <sup>3</sup> / <sub>4</sub>	6	8 <sup>3</sup> / <sub>4</sub>	
331	2 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	—	8 <sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>4</sub>	9	<sup>1</sup> / <sub>2</sub> -13	3 <sup>1</sup> / <sub>16</sub>	<sup>1</sup> / <sub>4</sub> sq × 1 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	
331	3 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	—	8 <sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>4</sub>	9	<sup>1</sup> / <sub>2</sub> -13	3 <sup>1</sup> / <sub>16</sub>	<sup>5</sup> / <sub>16</sub> sq × 2 <sup>3</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	
341	3 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	—	8 <sup>1</sup> / <sub>2</sub>	<sup>1</sup> / <sub>4</sub>	9	<sup>1</sup> / <sub>2</sub> -13	4 <sup>1</sup> / <sub>4</sub>	<sup>5</sup> / <sub>16</sub> sq × 2 <sup>3</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>4</sub>	

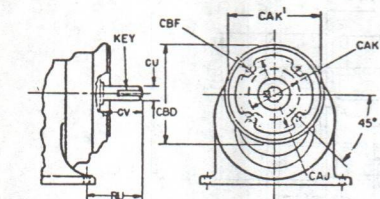
- (1) Add 1" to CB Dimension for Sizes 111 and 121 on Assembly 166-A.  
 (2) Size 111, gear ratio 1.17 and 1.44 cannot be vertical shaft mounted.



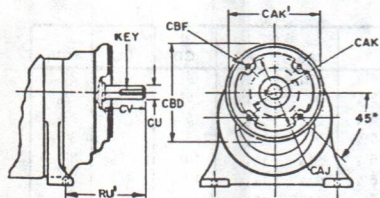
Assembly 167-A



## FOOT MOUNTED MOTO DRIVE REDUCER WITH SINGLE REDUCTION REDUCER "C" FACE OUTPUT—SIZES 051 THRU 341



STANDARD MD "C" OR "Z" FLOW

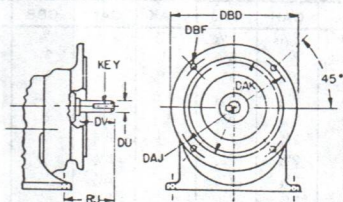


TRUNNION

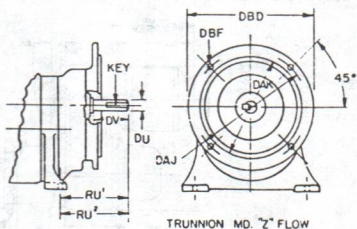
Size	Output Mtg.	RU	RU <sup>1</sup> "C"	RU <sup>2</sup> "Z"
051	56C	4 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>
111	56C	5 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	6
111	140TC	5 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>2</sub>
121	140TC	8	8 <sup>1</sup> / <sub>32</sub>	8 <sup>1</sup> / <sub>32</sub>
221	140TC	6 <sup>2</sup> / <sub>32</sub>	10 <sup>1</sup> / <sub>32</sub>	8 <sup>1</sup> / <sub>32</sub>
221	180TC	7 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>
231	180TC	9 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>
331	180TC	7 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>
331	210TC	7 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub>
341	210TC	9 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>

## FOOT MOUNTED MOTODRIVE WITH SINGLE REDUCTION REDUCER "D" FLANGE OUTPUT — SIZES 111 THRU 551

Size	Output Mtg.	RU	RU <sup>1</sup> "C"	RU <sup>2</sup> "Z"
111	140TD	5 <sup>7</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>2</sub>
121	140TD	8	8 <sup>1</sup> / <sub>32</sub>	8 <sup>1</sup> / <sub>16</sub>
221	140TD	6 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>16</sub>	8 <sup>9</sup> / <sub>16</sub>
221	180TD	7 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>
231	180TD	9	11 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>
331	180TD	7	12 <sup>5</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>
331	210TD	7 <sup>1</sup> / <sub>8</sub>	12 <sup>1</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub>
341	210TD	10 <sup>1</sup> / <sub>8</sub>	16 <sup>3</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>
441	250TD	8 <sup>1</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>16</sub>
451	320TD	11 <sup>1</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>16</sub>	15 <sup>5</sup> / <sub>16</sub>
551	320TD	11	19 <sup>1</sup> / <sub>16</sub>	15 <sup>5</sup> / <sub>16</sub>



STANDARD MD "C" OR "Z" FLOW

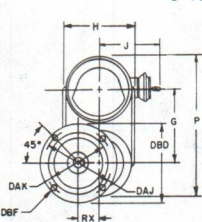


TRUNNION MD "Z" FLOW

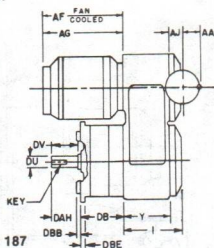
## NEMA "D" FLANGE

### VERTICAL SHAFT DOWN — SINGLE REDUCER

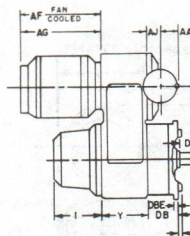
"C" FLOW



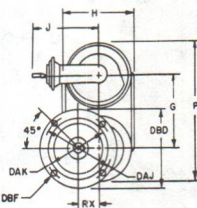
Assembly 187



"Z" FLOW



Assembly 187-A



Size	Output Mounting	G	H	I	J	P	Y	AA	AJ	DB	DU	DV
111(1)	140TD	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	15 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>8</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>2</sub>	7 <sup>8</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>
121	140TD	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	15 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>8</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	7 <sup>8</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>
221	140TD	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	19 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	9 <sup>7</sup> / <sub>8</sub>	7 <sup>8</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>
221	180TD	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	19 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	9 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>
231	180TD	9 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	19 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>	10 <sup>9</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>
331	180TD	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	24	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>
331	210TD	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	24	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>
341	210TD	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	24	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	15	1 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>16</sub>
441	250TD	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>8</sub>	29 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	5	2 <sup>7</sup> / <sub>16</sub>	15 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	4
451	320TD	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	13 <sup>3</sup> / <sub>8</sub>	29 <sup>7</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	5	2 <sup>7</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
551	320TD	19 <sup>5</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>8</sub>	11	6	3 <sup>7</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>
661 & 661K	400UD	20 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	14 <sup>9</sup> / <sub>16</sub>	14 <sup>7</sup> / <sub>8</sub>	39 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	7	4 <sup>3</sup> / <sub>4</sub>	21 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>

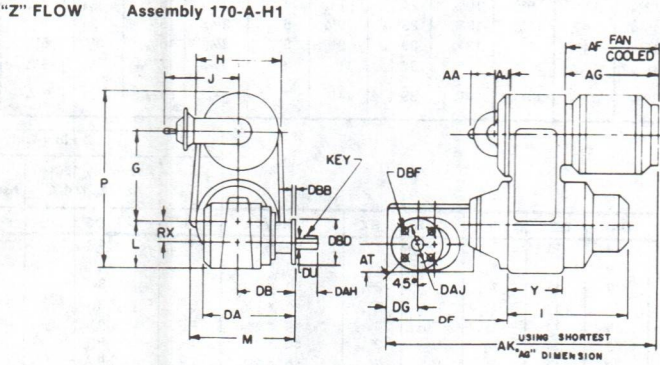
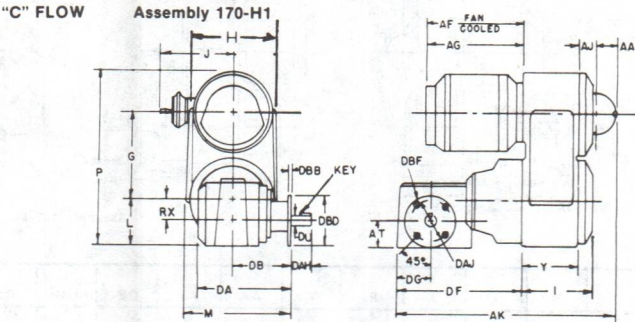
Z-Flow Only			
		Assembly 186-A, 187-A, 189-A	Assembly 188-A
Size	DAH	DAJ	DAK
111(1)	2 <sup>1</sup> / <sub>4</sub>	10	9
121	2 <sup>1</sup> / <sub>4</sub>	10	9
221	2 <sup>1</sup> / <sub>4</sub>	10	9
221	2 <sup>1</sup> / <sub>4</sub>	10	9
231	2 <sup>3</sup> / <sub>4</sub>	10	9
331	2 <sup>3</sup> / <sub>4</sub>	10	9
331	3 <sup>3</sup> / <sub>8</sub>	10	9
341	3 <sup>3</sup> / <sub>8</sub>	10	9
441	4	12 <sup>1</sup> / <sub>2</sub>	11
451	5 <sup>1</sup> / <sub>4</sub>	16	14
551	5 <sup>1</sup> / <sub>4</sub>	16	14
661 & 661K	7 <sup>1</sup> / <sub>8</sub>	20	18
Size	DAH	DAJ	DAK
111(1)	2 <sup>1</sup> / <sub>4</sub>	10	9
121	2 <sup>1</sup> / <sub>4</sub>	10	9
221	2 <sup>1</sup> / <sub>4</sub>	10	9
221	2 <sup>1</sup> / <sub>4</sub>	10	9
231	2 <sup>3</sup> / <sub>4</sub>	10	9
331	2 <sup>3</sup> / <sub>4</sub>	10	9
331	3 <sup>3</sup> / <sub>8</sub>	10	9
341	3 <sup>3</sup> / <sub>8</sub>	10	9
441	4	12 <sup>1</sup> / <sub>2</sub>	11
451	5 <sup>1</sup> / <sub>4</sub>	16	14
551	5 <sup>1</sup> / <sub>4</sub>	16	14
661 & 661K	7 <sup>1</sup> / <sub>8</sub>	20	18

(1) Size 111, gear ratio 1.17 and 1.44 cannot be vertical shaft mounted



# Dimensions

## RIGHT ANGLE VERTICAL SHAFT DOWN FLANGE MOUNT



For Horizontal Shaft Assemblies contact  
Reeves Product Department.

"C" FLOW AND "Z" FLOW

Size	G	H	I	J	L	M	P	Y	AA	AJ
05W12	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	7	13 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>
05C12	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>8</sub>	13 <sup>5</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>
05W16	6 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>
1W16	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>3</sup> / <sub>8</sub>
1C16	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	9 <sup>5</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>3</sup> / <sub>8</sub>
1W21	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>8</sub>	17 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>3</sup> / <sub>8</sub>
1C21	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>3</sup> / <sub>8</sub>
1C28	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	12 <sup>5</sup> / <sub>8</sub>	20 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	2	7 <sup>3</sup> / <sub>8</sub>
2W21	9 <sup>5</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>8</sub>	10 <sup>9</sup> / <sub>4</sub>	20 <sup>9</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
2C21	9 <sup>5</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>16</sub>	12 <sup>9</sup> / <sub>8</sub>	21 <sup>9</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
2W28	9 <sup>5</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	11 <sup>9</sup> / <sub>4</sub>	22	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
2C28	9 <sup>5</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	8 <sup>5</sup> / <sub>8</sub>	13 <sup>9</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
2C40	9 <sup>5</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	15 <sup>9</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
3C21	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>8</sub>	24 <sup>9</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
3W28	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	7 <sup>9</sup> / <sub>16</sub>	12 <sup>3</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
3C28	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	14 <sup>9</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
3W40	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>3</sub>	13 <sup>1</sup> / <sub>16</sub>	28 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
3C40	12 <sup>3</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	16 <sup>9</sup> / <sub>8</sub>	29 <sup>1</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>
4W40	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	13 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>3</sub>	15 <sup>1</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	5	2 <sup>7</sup> / <sub>16</sub>
4C40	15 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	13 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	17 <sup>5</sup> / <sub>16</sub>	33 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	5	2 <sup>7</sup> / <sub>16</sub>

Size	AK	AT	DA	DB	DF	DG	DU	DAH	DAJ
05W12	15 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	6	3 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	3 <sup>4</sup>	11 <sup>1</sup> / <sub>16</sub>	3 <sup>8/<sub>16</sub></sup>
05C12	18 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	8	4 <sup>7</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	7 <sup>8</sup>	2	4
05W16	17 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	10 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	7 <sup>8</sup>	2 <sup>1</sup> / <sub>16</sub>	4
1W16	19 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>8</sub>	7 <sup>8</sup>	2 <sup>1</sup> / <sub>16</sub>	4
1C16	23 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>9</sup> / <sub>16</sub>	6 <sup>8</sup> / <sub>16</sub>
1W21	21 <sup>3</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>16</sub>	9 <sup>9</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>4</sub>	3 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>16</sub>	6 <sup>8</sup> / <sub>16</sub>
1C21	26 <sup>5</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>8</sub>	18 <sup>3</sup> / <sub>16</sub>	4 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>
1C28	29 <sup>7</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>3</sub>	21 <sup>5</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>
2W21	25 <sup>1</sup> / <sub>16</sub>	3 <sup>9</sup> / <sub>16</sub>	9 <sup>9</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>4</sub>	3 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>16</sub>	6 <sup>8</sup> / <sub>16</sub>
2C21	29 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>8</sub>	19	4 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>
2W28	27 <sup>1</sup> / <sub>16</sub>	4	11 <sup>9</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	17	4 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>
2C28	33 <sup>1</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>3</sub>	22 <sup>3</sup> / <sub>4</sub>	5 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>
2C40	36 <sup>5</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>16</sub>	10	25 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>
3C21	34 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>2</sub>	6 <sup>7</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>16</sub>	4 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>
3W28	32 <sup>1</sup> / <sub>2</sub>	4	11 <sup>9</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>16</sub>	4 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>
3C28	38 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>3</sub>	24 <sup>7</sup> / <sub>16</sub>	5 <sup>9</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>2</sub>
3W40	39 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	25 <sup>7</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>4</sub>
3C40	44 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>16</sub>	10	31 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>
4W40	44 <sup>9</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	27 <sup>7</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>4</sub>
4C40	49 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>16</sub>	10	33 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>16</sub>	2 <sup>9</sup> / <sub>8</sub>	3 <sup>9</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>4</sub>

Size	DBB	DBD	DBF (1)	RX	Z-Flow Only		
					Key	I	AK
05W12	3/8	4	13/32	1 1/2	3/16 SQ. x 1	7/16	8 1/16
05C12	7/16	5	13/32	1 1/2	3/16 SQ. x 1 1/4	7/16	26 1/8
05W16	7/16	5	13/32	2	3/16 SQ. x 1 1/4	7/16	24 3/4
1W16	7/16	5	13/32	2	3/16 SQ. x 1 1/4	8 1/32	26 1/16
1C16	1/2	7	13/32	2	1/4 SQ. x 1 3/4	8 1/32	30 1/4
1W21	1/2	7	13/32	2 5/8	1/4 SQ. x 1 3/4	8 1/32	28 3/8
1C21	5/8	10	17/32	2 5/8	3/8 SQ. x 2 1/2	8 1/32	33 5/16
1C28	5/8	14	17/32	3 1/2	1/2 SQ. x 3	8 1/32	36 7/16
2W21	1/2	7	13/32	2 5/8	1/4 SQ. x 1 3/4	12 1/4	33 1/4
2C21	5/8	10	17/32	2 5/8	3/8 SQ. x 2 1/2	12 1/4	37 1/2
2W28	5/8	10	17/32	3 1/2	3/8 SQ. x 2 1/2	12 1/4	35 1/2
2C28	5/8	14	17/32	3 1/2	1/2 SQ. x 3	12 1/4	41 1/4
2C40	3/4	16 1/2	17/32	5	5/8 SQ. x 4	12 1/4	43 3/8
3C21	5/8	10	17/32	2 5/8	3/8 SQ. x 1 3/4	15 3/8	41 1/8
3W28	5/8	10	17/32	3 1/2	3/8 SQ. x 1 3/4	15 3/8	39 1/8
3C28	5/8	14	17/32	3 1/2	1/2 SQ. x 3	15 3/8	44 3/4
3W40	3/4	16 1/2	17/32	5	1/2 SQ. x 3 3/4	15 3/8	40 9/16
3C40	3/4	16 1/2	17/32	5	5/8 SQ. x 4	15 3/8	45 1/16
4W40	3/4	16 1/2	17/32	5	1/2 SQ. x 3 3/4	18 1/16	44 1/2
4C40	3/4	16 1/2	17/32	5	5/8 SQ. x 4	18 1/16	49 7/8

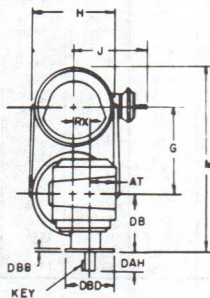
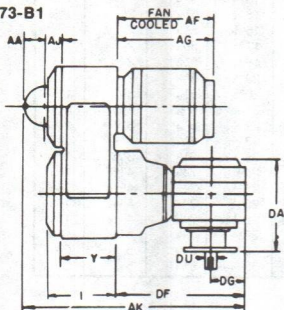
(1) Size C40 has eight Mounting Holes.



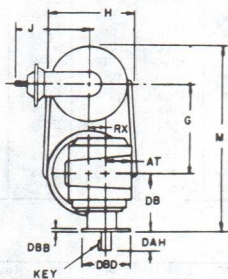
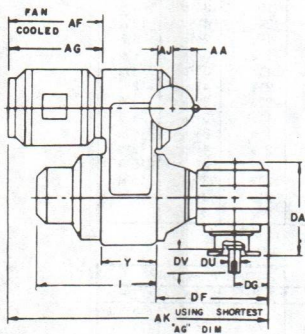
# Dimensions

## RIGHT ANGLE VERTICAL SHAFT DOWN FLANGE MOUNT

Assembly 173-B1



Assembly 175-A-B1



For Horizontal Shaft Assemblies contact  
Reeves Product Department.

**"C" FLOW AND "Z" FLOW**

Size	G	H	I	J	M	Y	AA	AJ	AK	AT
05W12	6 1/2	6 7/16	5 3/8	5 9/16	13 1/8	4 1/4	1 9/16	13 1/16	15 9/16	23 1/8
05C12	6 1/2	6 7/16	5 3/8	5 9/16	14 1/4	4 1/4	1 9/16	13 1/16	18 7/16	27 1/8
05W16	6 1/2	6 7/16	5 3/8	5 9/16	14	4 1/4	1 9/16	13 1/16	17 1/16	27 1/8
1W16	7 3/4	8 1/2	6 5/8	6 7/8	16 5/16	5 1/4	2	7/8	19 15/16	27 1/8
1C16	7 3/4	8 1/2	6 5/8	6 7/8	16 13/16	5 1/4	2	7/8	23 1/4	21 5/16
1W21	7 3/4	8 1/2	6 5/8	6 7/8	17 9/16	5 1/4	2	7/8	21 3/8	3 9/16
1C21	10 1/2	8 1/2	6 5/8	6 7/8	21 5/16	5 1/4	2	7/8	26 5/16	4 1/16
1C28	10 1/2	8 1/2	6 5/8	6 7/8	22 1/4	5 1/4	2	7/8	29 7/16	5 5/8
2W21	9 7/8	9 3/4	7 3/4	8 3/4	20 5/16	6 1/4	3 1/8	19 1/8	25 1 1/16	3 9/16
2C21	9 7/8	9 3/4	7 3/4	8 3/4	21 5/16	6 1/4	3 1/8	19 1/8	29 15/16	4 1/16
2W28	9 7/8	9 3/4	7 3/4	8 3/4	21 5/16	6 1/4	3 1/8	19 1/8	27 15/16	4
2C28	11 1/2	9 3/4	7 3/4	8 3/4	23 7/8	6 1/4	3 1/8	19 1/8	33 1 1/16	5 5/8
2C40	13	9 3/4	7 3/4	8 3/4	27 9/16	6 1/4	3 1/8	19 1/8	36 5/16	6 1/4
3C21	12 3/8	11 7/8	9 9/16	10 7/8	24 3/4	7 3/4	4 3/16	13 3/4	34 1/2	4 1/16
3W28	12 3/8	11 7/8	9 9/16	10 7/8	24 3/4	7 3/4	4 3/16	13 3/4	32 1/2	4
3C28	13 3/4	11 7/8	9 9/16	10 7/8	27 1 1/16	7 3/4	4 3/16	13 3/4	38 1/8	5 5/8
3W40	13 3/4	11 7/8	9 9/16	10 7/8	26 3/8	7 3/4	4 3/16	13 3/4	39 9/16	5 13/16
3C40	13 3/4	11 7/8	9 9/16	10 7/8	29 1/4	7 3/4	4 3/16	13 3/4	44 15/16	6 1/4
4W40	15 1/4	14 1/4	11 1/2	13 5/8	29 1 1/16	9 1/4	5	27 1/8	44 9/16	5 13/16
4C40	15 1/4	14 1/4	11 1/2	13 5/8	31 5/16	9 1/4	5	27 1/8	49 15/16	6 1/4

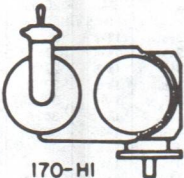

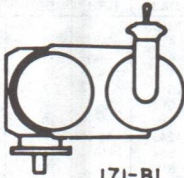
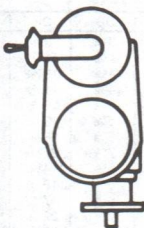
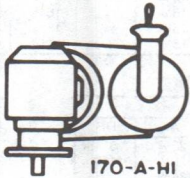

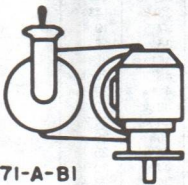

Size	DA	DB	DF	DG	DU	DAH	DAJ	DBB	DBD	DBF (1)
05W12	6	3 3/4	8 15/16	2 3/16	3/4	1 11/16	3 1/8	3/8	4	9/32
05C12	8	4 7/8	11 13/16	3 1/16	7/8	2	4	7/16	5	13/32
05W16	7 3/16	4 5/8	10 7/16	2 7/8	7/8	2 1/16	4	7/16	5	13/32
1W16	7 3/16	4 5/8	11 3/16	2 7/8	7/8	2 1/16	4	7/16	5	13/32
1C16	8 13/16	5 1/8	15 1/8	3 9/16	1 1/8	2 9/16	6 1/8	1/2	7	13/32
1W21	9 9/16	5 7/8	13 1/4	3 9/16	1 1/8	2 7/16	6 1/8	1/2	7	13/32
1C21	11 1/2	6 7/8	18 9/16	4 5/16	1 1/2	3 3/16	8 1/2	5/8	10	17/32
1C28	13 7/16	7 13/16	21 5/16	5 9/16	2 1/8	4 1/2	12 1/2	5/8	14	17/32
2W21	9 9/16	5 7/8	14 3/4	3 9/16	1 1/8	2 7/16	6 1/8	1/2	7	13/32
2C21	11 1/2	6 7/8	19	4 5/16	1 1/2	3 3/16	8 1/2	5/8	10	17/32
2W28	11 5/8	6 7/8	17	4 9/16	1 1/2	3 3/16	8 1/2	5/8	10	17/32
2C28	13 7/16	7 13/16	22 3/4	5 9/16	2 1/8	4 1/2	12 1/2	5/8	14	17/32
2C40	17 7/16	10	25 3/8	6 1 1/16	2 5/8	3 5/8	15 1/4	3/4	16 1/2	17/32
3C21	11 1/2	6 7/8	20 13/16	4 5/16	1 1/2	3 3/16	8 1/2	5/8	10	17/32
3W28	11 5/8	6 7/8	18 13/16	4 9/16	1 1/2	3 3/16	8 1/2	5/8	10	17/32
3C28	13 7/16	7 13/16	24 7/16	5 9/16	2 1/8	4 1/2	12 1/2	5/8	14	17/32
3W40	12 7/8	7 1/8	25 7/8	7 3/16	2 1/8	3 1/2	15 1/4	3/4	16 1/2	17/32
3C40	17 7/16	10	31 1/4	6 1 1/16	2 5/8	3 5/8	15 1/4	3/4	16 1/2	17/32
4W40	12 7/8	7 1/8	27 7/8	7 3/16	2 1/8	3 1/2	15 1/4	3/4	16 1/2	17/32
4C40	17 7/16	10	33 1/4	6 1 1/16	2 5/8	3 5/8	15 1/4	3/4	16 1/2	17/32

			Z-Flow Only				
Size	RX	Key	G	I	M	AK	DF
05W12	1½	¾ sq. x 1	6½	7⅞	13⅞	23¼	8½⅞
05C12	1½	¾ sq. x 1¼	6½	7⅞	14¼	26⅞	11⅞
05W16	2	¾ sq. x 1¼	6½	7⅞	14	24¾	10⅞
1W16	2	¾ sq. x 1¼	7¾	8⅞	16⅞	26⅞	11⅞
1C16	2	¼ sq. x 1¾	7¾	8⅞	16⅞	30¼	15⅞
1W21	2⅝	¼ sq. x 1¾	7¾	8⅞	17⅞	28⅞	13¼
1C21	2⅝	¾ sq. x 2½	7¾	8⅞	18⅞	33⅞	18⅞
1C28	3½	½ sq. x 3	7¾	8⅞	19½	36⅞	21⅞
2W21	2⅝	¼ sq. x 1¾	9⅞	12¼	20⅞	33¼	14¾
2C21	2⅝	¾ sq. x 2½	9⅞	12¼	21⅞	37½	19
2W28	3½	¾ sq. x 2½	9⅞	12¼	21⅞	35½	17
2C28	3½	½ sq. x 3	9⅞	12¼	22¼	41¼	22¾
2C40	5	⅝ sq. x 4	9⅞	12¼	24⅞	43⅞	25⅞
3C21	2⅝	¾ sq. x 1¾	12⅞	15⅞	24¾	41½	20⅞
3W28	3½	¾ sq. x 1¾	12⅞	15⅞	24¾	39⅞	18⅞
3C28	3½	½ sq. x 3	12⅞	15⅞	25⅞	44¾	24⅞
3W40	5	½ sq. x 3¾	12⅞	15⅞	25	40⅞	20¼
3C40	5	⅝ sq. x 4	12⅞	15⅞	27⅞	45⅞	25⅞
4W40	5	½ sq. x 3¾	15¼	18⅞	29⅞	44⅞	20⅞
4C40	5	⅝ sq. x 4	15¼	18⅞	31⅞	49⅞	26⅞

(1) Size C40 has eight Mounting Holes



## FLANGE MOUNTING POSITIONS

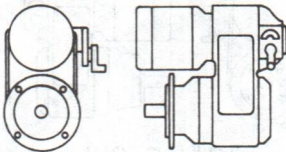
RIGHT ANGLE REDUCERS SHAFT DOWN	
 <p>170-HI</p>	 <p>173-BI</p>
 <p>171-BI</p>	 <p>174-HI</p>
 <p>170-A-HI</p>	 <p>172-A-HI</p>
 <p>171-A-BI</p>	 <p>175-A-BI</p>



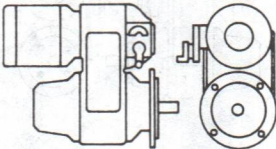


ASSEMBLIES — HORIZONTAL SHAFT TYPE  
NEMA "D" FLANGE — NO REDUCER

"C" FLOW



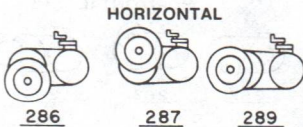
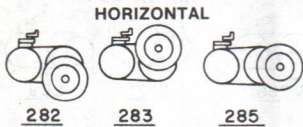
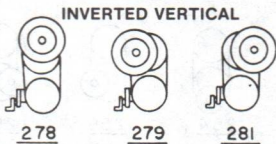
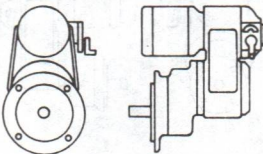
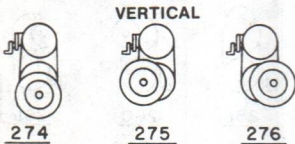
"Z" FLOW



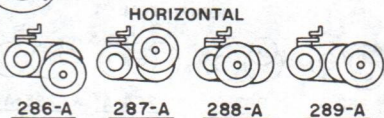
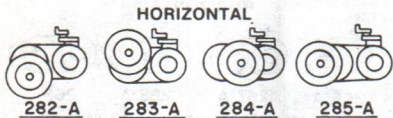
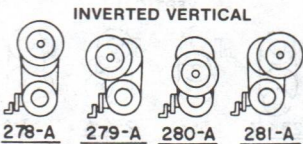
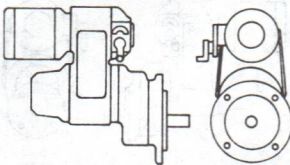
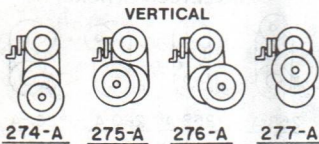
DIMENSION SHEET — SD-6100-20W

NEMA "D" FLANGE — SINGLE REDUCER

"C" FLOW



"Z" FLOW

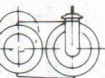


## ASSEMBLIES — VERTICAL SHAFT DOWN TYPE

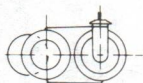
### NEMA C-FACE

#### NO REDUCER

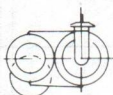
"C" FLOW



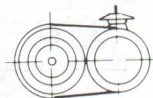
164 - 164E



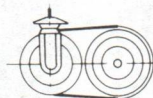
167 — 167E



165 - 165E



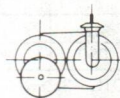
168 or 168E



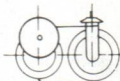
168A or 168EA

#### SINGLE REDUCERS

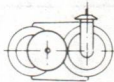
"Z" FLOW



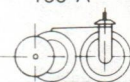
164-A



165-A



166-A

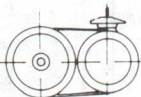


167-A

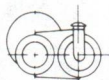
### NEMA "D" FLANGE

#### NO REDUCERS

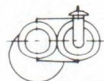
"C" FLOW



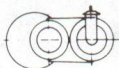
185 or 185E



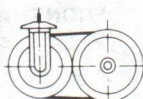
186, 186E



187, 187E



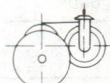
189, 189E



185A or 185EA

#### SINGLE REDUCERS

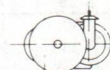
"Z" FLOW



186-A



187-A



188-A



189-A



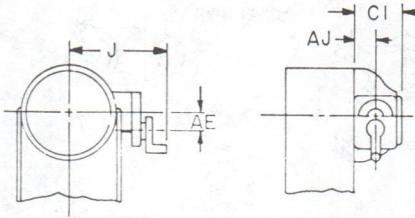
# Dimensions

## STANDARD HANDWHEEL CONTROL

■ SIZE 050

Size	J	AJ	CI	AE
050	5 <sup>9</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>

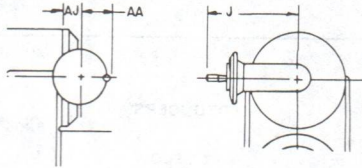
NOTE—SIZE NO. 050 AVAILABLE IN POSITIONS "N", "E", "W", ONLY.



## STANDARD HANDWHEEL CONTROL

■ SIZE 100 — 600K

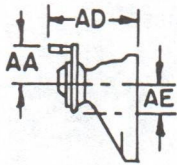
Size	J	AA	AJ
100	6 <sup>7</sup> / <sub>8</sub>	2	7 <sup>7</sup> / <sub>8</sub>
200	8 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>9</sup> / <sub>16</sub>
300	10 <sup>7</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>
400	13 <sup>5</sup> / <sub>8</sub>	5	2 <sup>7</sup> / <sub>16</sub>
500	14 <sup>7</sup> / <sub>8</sub>	6	3 <sup>7</sup> / <sub>16</sub>
600 & 600K	14 <sup>7</sup> / <sub>8</sub>	7	4 <sup>3</sup> / <sub>4</sub>



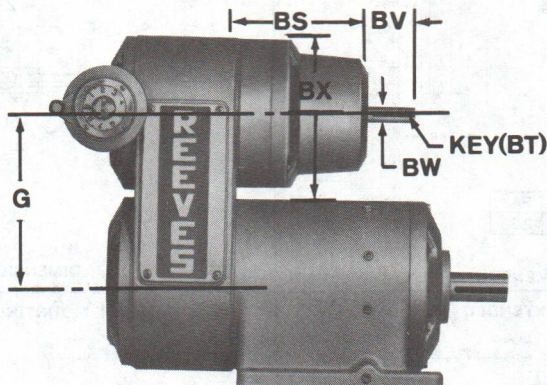
## FRONT HANDWHEEL CONTROL

SIZE 050 — 600K

Size	AA	AD	AE
050	1 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>
100	2	5 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>
200	3 <sup>1</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>
300	4 <sup>3</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>2</sub>	1 <sup>15</sup> / <sub>16</sub>
400	5	12 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>
500	6	13 <sup>9</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>
600 & 600K	7	14 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>



**BELT DRIVEN (BD) MOTO DRIVE REDUCER**  
**100 THRU 200—X-V CONSTRUCTION**  
**300—STANDARD ENCLOSURES WITH NORMAL OPTIONS**



**BELT CASE SIZE REQUIREMENTS**

Unit Size	STANDARD TYPE		TRUNNION TYPE	
	"C" Flow	"Z" Flow	"C" Flow	"Z" Flow
100,111,121	1	1	1	1
112,113	1	1	NA	NA
122,123,133	2	1	NA	NA
200,221,231	2	2	2	2
222,223	2	2	NA	NA
232,233,243	3	2	NA	NA
300,331,341	1	1	1	1
332,333	2	1	NA	NA
342,343	3	1	NA	NA
353	NA	1	NA	NA

Units	BS	BT	BV	BW	BX
100	4 <sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub> × 9 <sup>1</sup> / <sub>16</sub> × 1 <sup>15</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>16</sub>
200	8 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub> × 1 <sup>1</sup> / <sub>4</sub> × 1 <sup>7</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	1	9 <sup>9</sup> / <sub>16</sub>
300	9 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> × 1 <sup>1</sup> / <sub>4</sub> × 1 <sup>15</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	12

Unit	Belt Case Size	G
100	1	7 <sup>3</sup> / <sub>4</sub>
	2	10 <sup>1</sup> / <sub>2</sub>
	3	11 <sup>1</sup> / <sub>2</sub>
200	1	13
	2	13 <sup>3</sup> / <sub>4</sub>
	3	16 <sup>1</sup> / <sub>4</sub>

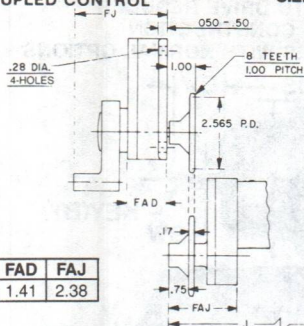


# Dimensions

## EXTENDED INDICATOR HANDWHEEL CONTROLS

### CLOSE COUPLED CONTROL

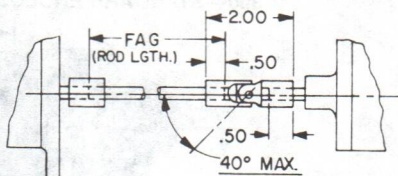
SIZE 050



Size	J	FJ	FAD	FAJ
050	5.69	2.62	1.41	2.38

DIMENSION SHEET — 600901-802

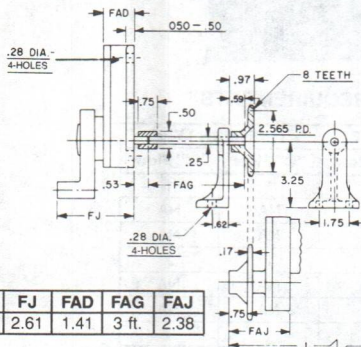
### ROD TYPE — UNIVERSAL COUPLING



Size	FAG
050	3 ft.

DIMENSION SHEET — 600901-80

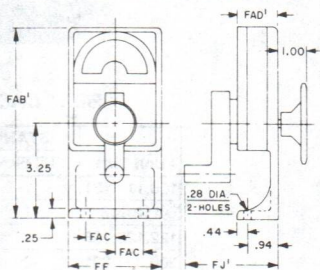
### ROD EXTENDED



Size	J	FJ	FAD	FAG	FAJ
050	5.69	2.61	1.41	3 ft.	2.38

DIMENSION SHEET — 600901-803

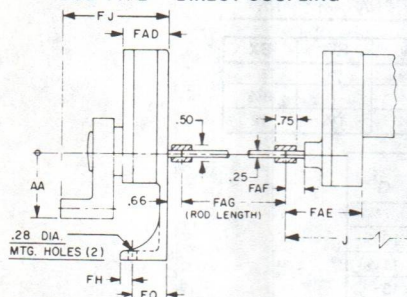
### CONTROL MOUNTING BRACKET



Size	FF	FJ'	FAB'	FAC	FAD'
050	2.88	2.50	5.97	.88	1.31

DIMENSION SHEET — 600901-802

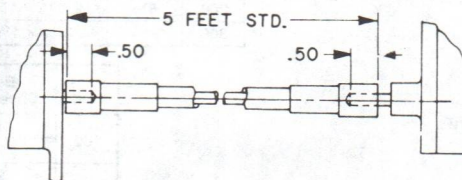
### ROD TYPE — DIRECT COUPLING



Size	J	AA	FH	FJ	FO	FAD	FAE	FAF	FAG
050	5.72	1.19	.44	2.50	.94	1.31	2.34	.72	3 ft.

DIMENSION SHEET 600901-801

### FLEXIBLE SHAFT CONTROL



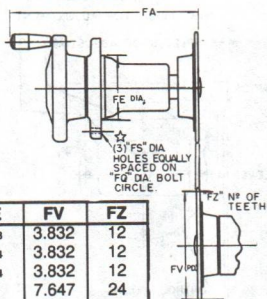
DIMENSION SHEET — 600901-80

# EXTENDED INDICATOR HANDWHEEL CONTROLS

SIZES 100 - 600

## CLOSE COUPLED CONTROL

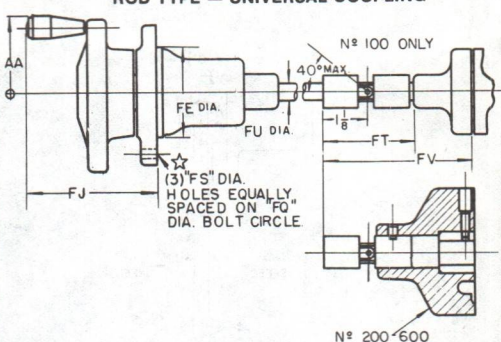
3/16" x 1" P. CHAIN



Size	FA	FE	FV	FZ
100	6 31/32	2 3/8	3.832	12
200	9 13/16	3 1/4	3.832	12
300	9 13/16	3 1/4	3.832	12
400	10	4	7.647	24
500	10 1/16	4	7.647	24
600	10 1/16	4	7.647	24

DIMENSION SHEET - 2-59413

## ROD TYPE - UNIVERSAL COUPLING

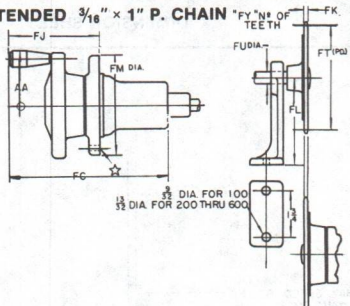


Size	AA	FE	FJ	FS	FT	FU	FV
100	2 1/16	2 3/8	3 7/32	9/32	2 11/32	7/16	3 25/32
200	4 5/32	3 1/4	5 17/32	1 1/32	1 3/8	1 1/16	3 17/32
300	4 5/32	3 1/4	5 17/32	1 1/32	1 3/8	1 1/16	3 17/32
400	5 1/32	4	5 27/32	1 1/32	1 3/8	1 1/16	4
500	6 1/32	4	5 29/32	1 1/32	1 3/8	1 1/16	4
600	7 1/32	4	5 29/32	1 1/32	1 3/8	1 1/16	4

N° 200-600

300 - 600K - DIMENSION SHEET - 2-59418

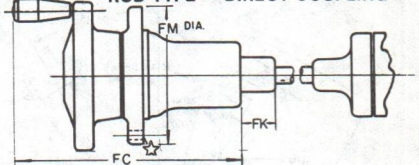
## ROD EXTENDED 3/16" x 1" P. CHAIN



Size	AA	FC	FJ	FK	FL	FM	FT	FU	FY
100	2 1/16	5 25/32	3 7/32	1 1/8	3 1/4	3.832	7/16	12	
200	4 5/32	8 23/32	5 17/32	1 1/8	5	5 1/2	3.832	1 1/16	12
300	4 5/32	8 23/32	5 17/32	1 1/8	5	5 1/2	3.832	1 1/16	12
400	5 1/32	8 27/32	5 27/32	1 1/8	7 1/2	6 1/4	7.647	1 1/16	24
500	6 1/32	8 29/32	5 29/32	1 1/8	7 1/2	6 1/4	7.647	1 1/16	24
600	7 1/32	8 29/32	5 29/32	1 1/8	7 1/2	6 1/4	7.647	1 1/16	24

DIMENSION SHEET - 2-59413

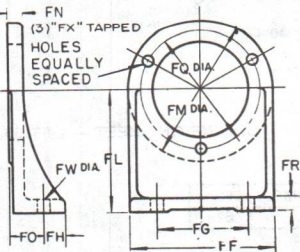
## ROD TYPE - DIRECT COUPLING



Size	FC	FK	FM
100	5 25/32	2 9/32	3 3/4
200	8 23/32	1 1/4	5 1/2
300	8 23/32	1 1/4	5 1/2
400	8 27/32	2 5/8	6 1/4
500	8 29/32	2 5/8	6 1/4
600	8 29/32	2 5/8	6 1/4

DIMENSION SHEET - 2-59418

## CONTROL MOUNTING BRACKET



Size	FF	FG	FH	FL	FM	FN	FO	FQ	FR	FW	FX
100	3 3/4	2 3/8	5/8	3 1/4	3 3/4	3/8	1 5/16	3 1/8	3/8	1 1/32	1/4-20
200	5 1/2	3 3/4	1	5	5 1/2	1/2	1 3/8	4 5/8	1/2	1 3/32	5/16-18
300	5 1/2	3 3/4	1	5	5 1/2	1/2	1 3/8	4 5/8	1/2	1 3/32	5/16-18
400	6 1/4	4 1/4	1 1/8	7 1/2	6 1/4	1/2	1 3/4	5 3/8	1/2	1 7/32	5/16-18
500	6 1/4	4 1/4	1 1/8	7 1/2	6 1/4	1/2	1 3/4	5 3/8	1/2	1 7/32	5/16-18
600	6 1/4	4 1/4	1 1/8	7 1/2	6 1/4	1/2	1 3/4	5 3/8	1/2	1 7/32	5/16-18

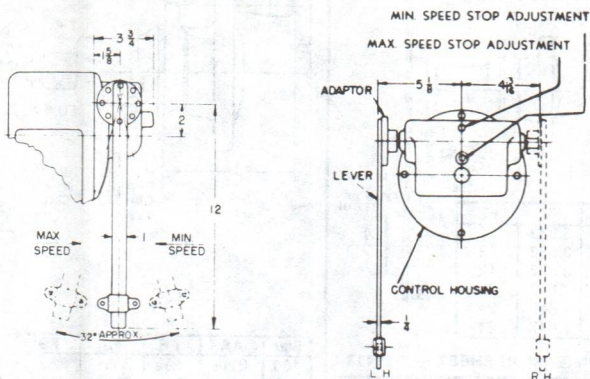
DIMENSION SHEET - 2-59418



# Dimensions

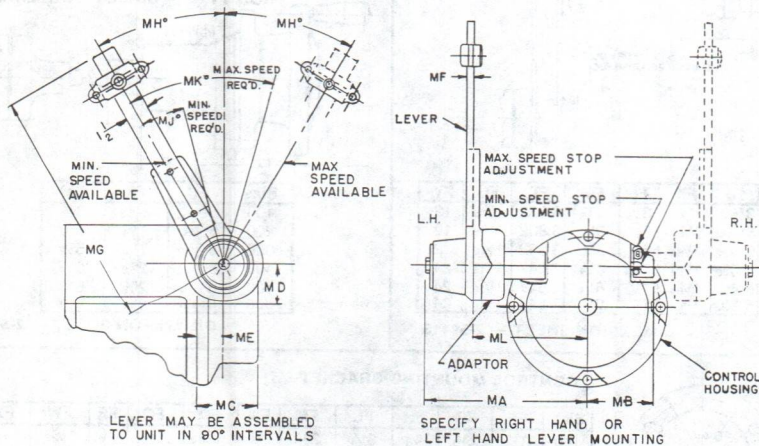
## MECHANICAL AUTOMATIC CONTROL

SIZE 100



DIMENSION SHEET — 2-56021

SIZE 200



DIMENSION SHEET — 2-59055

Sizes	MA	MB	MC	MD	ME	MF	MG	ML
200	9 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>

M1-180

Technical drawing of a control panel showing front and side views with dimensions and labels.

**Front View Dimensions:**

- Overall height: 4
- Distance from top to "FAST" button:  $3\frac{3}{4}$
- Distance from "FAST" button to "SLOW" button: 1
- Distance from "SLOW" button to bottom:  $2\frac{1}{2}$
- Overall width: 2
- Distance from left edge to button center:  $\frac{3}{4}$
- Distance from right edge to button center:  $\frac{1}{2}$

**Labels:**

- FAST
- SLOW
- HOLES FOR CROWS

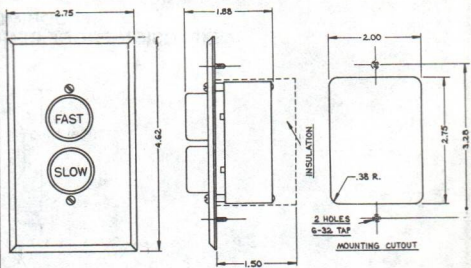
**Side View Dimensions:**

- Overall height: 15
- Distance from top to first horizontal line:  $2\frac{5}{16}$
- Distance from first horizontal line to second horizontal line:  $2\frac{1}{16}$
- Distance from second horizontal line to bottom:  $2\frac{1}{16}$

**Labels:**

- KNICKOUTS FOR  $\frac{1}{2}$  x 1-3/4 CONDUITS TOP AND BOTTOM

**NEMA-1 FLUSH MOUNT E.R.C. PUSHBUTTON**



**DIMENSION SHEET — D62000-08-J**

Technical drawing of a 605036-30-K dimension sheet. The drawing includes a front view on the left and a side view on the right. Key dimensions and labels are as follows:

- Front View Dimensions:**
  - Top edge: 9/32 DIA. - 2 MTG. HOLES (pointing to a hole), 1-1/8" (width of top section), 3-1/8" (total width).
  - Right edge: 4-7/8" (height of main body), 5-1/2" (height of side section), 6-1/4" (height of base section).
  - Bottom edge: 1-1/8" (width of base section), 3-1/8" (total width).
  - Internal features: Two circles labeled "FAST" and "SLOW" are centered vertically.
- Side View Dimensions:**
  - Top edge: 3-3/8" (width), 1-1/2" (width of top section).
  - Right edge: 3/4 PIPE TAP (pointing to a tap hole), 1-1/2" (width of base section), 1/16" (width of bottom section).
  - Internal features: A hole labeled "1/8 DIA. DRAIN HOLE" is located in the side section.
- Other Labels:**
  - "5/16" CLEARANCE FOR HEAD OF MTG. BOLT." (pointing to a hole in the top left).
  - "1/16 max." (dimension for a small gap).

**DIMENSION SHEET — 605036-30-K**

**DIMENSION SHEET — 605036-30-K**

3.81

3.00

5.88

4.50

FAST

SLOW

0.41

3.22

0.50

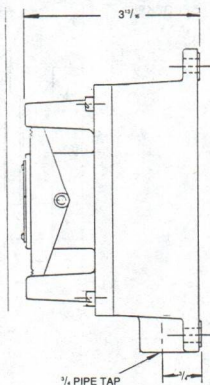
20 DIA. - 4 HOLES FOR MOUNTING

$\frac{3}{4}$  PIPE TAP

**DIMENSION SHEET — D42000-31-C**

[illegible]

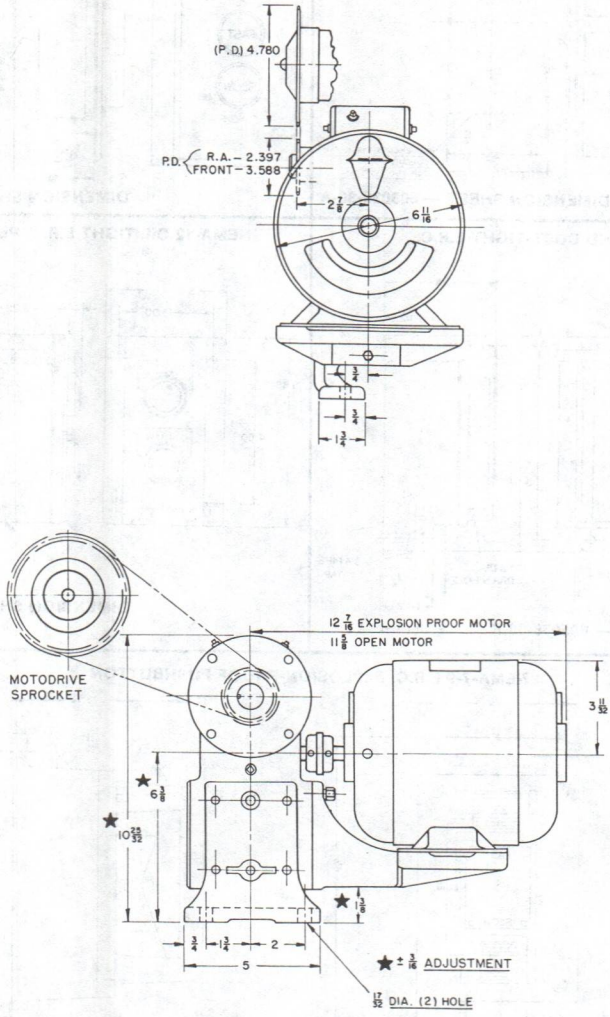
VENDOR: ALLEN BRADLEY  
VENDOR PART NO. 800S - 25 x 7



**DIMENSION SHEET — 605036-30-C**



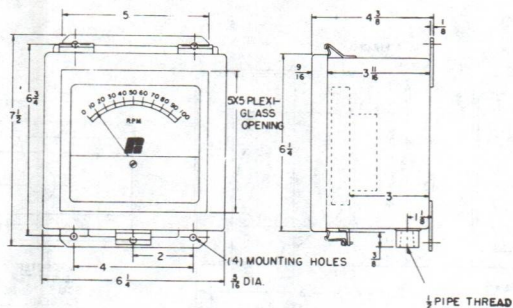
FLOOR MOUNTING  
EXPLOSION-PROOF REMOTE CONTROL SIZE 100





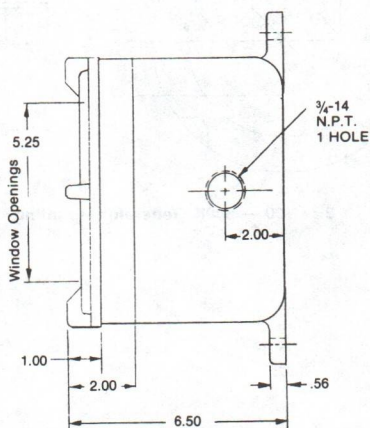
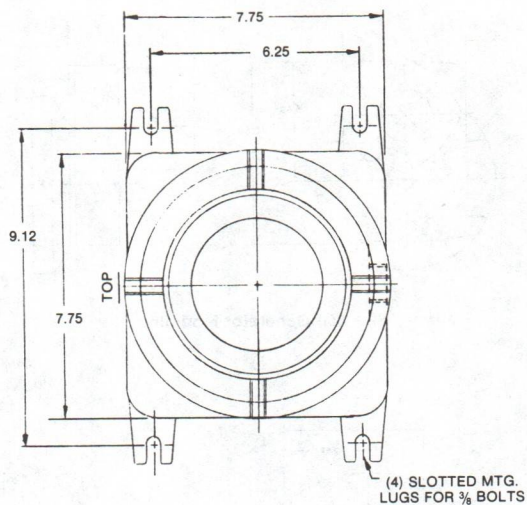


**REEVES A-C TACHOMETER INDICATOR  
DUST AND WATER-TIGHT**



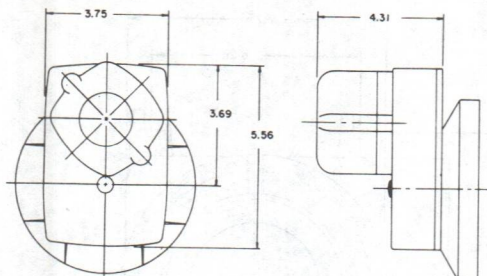
NOTE. TACHOMETER CALIBRATION SHOWN  
ILLUSTRATES A TYPICAL REQUIREMENT  
SCALE TO BE FURNISHED CALIBRATED  
TO READ \_\_\_\_\_ TO \_\_\_\_\_

# STANDARD REEVES A-C EXPLOSION-PROOF INDICATOR HEAD



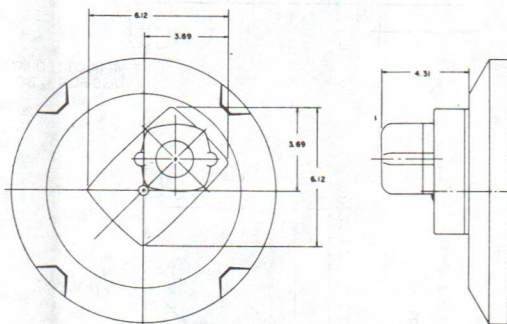


## REEVES A-C GENERATOR



Size 050 Generator Mounting

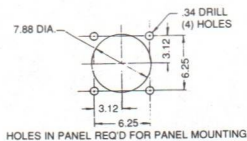
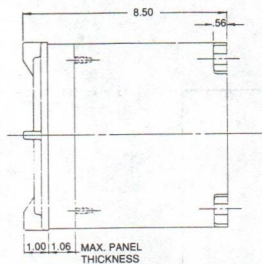
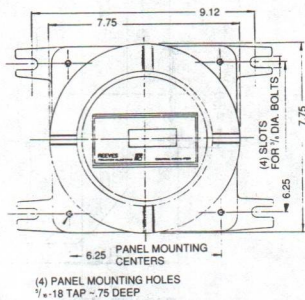
DIMENSION SHEET — SD-6100-08-J



Size 100 — 600K Generator Mounting

DIMENSION SHEET — SD-6100-08-K

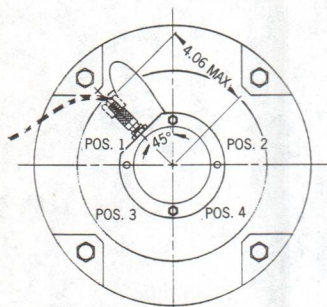
# REEVES EXPLOSION-PROOF DIGITAL TACHOMETER



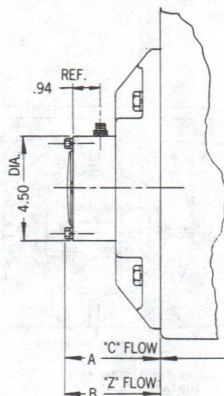


# Dimensions

## DIGITAL TACHOMETER PICKUP FOR No. 050-600 MOTO DRIVE



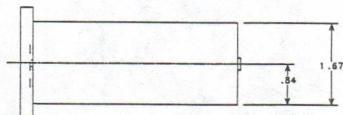
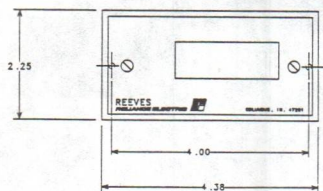
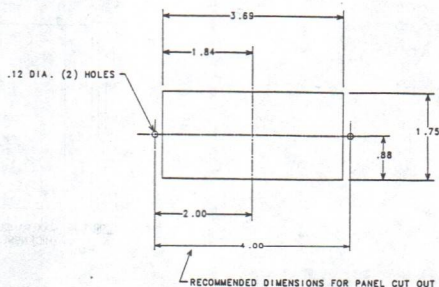
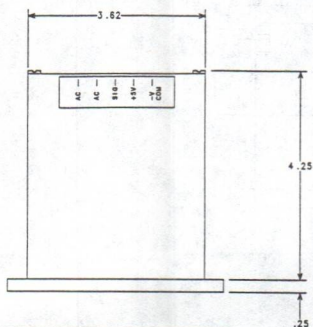
STANDARD PICKUP MATES WITH  
AMPHENOL MS3106A-10SL-4S  
CONNECTOR, EXPLOSION  
PROOF PICKUP HAS 1/2"  
INTERNAL PIPE THREADS AND  
18" LONG LEADS.



SIZE	A	B
050	2.72	3.47
100	3.16	5.32
200	3.25	7.75
300	3.56	9.37
400	4.00	11.19
500	4.69	13.13
600	4.81	15.44

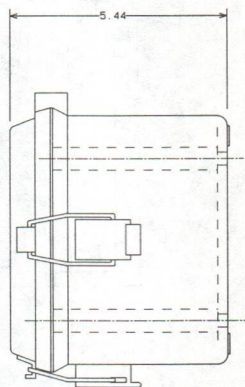
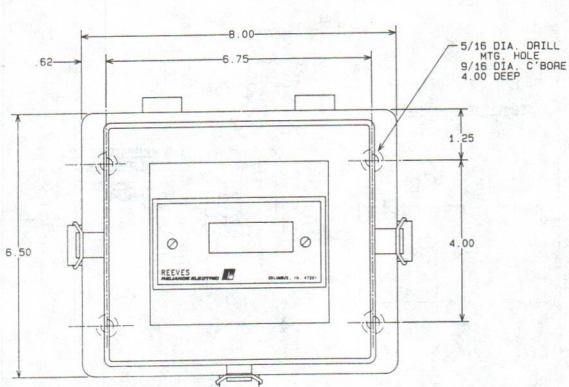
DIMENSION SHEET—SD6100-16-H

## DIGITAL TACHOMETER INDICATOR



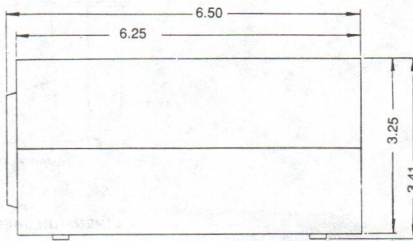
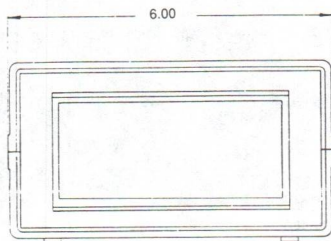
DIMENSION SHEET—SD7100-10-B

**DUST-TIGHT, WATER-TIGHT AND OIL-TIGHT ENCLOSURE  
FOR DIGITAL TACHOMETERS**



**DIMENSION SHEET—SD7100-10-F**

**BENCH MOUNT ENCLOSURE  
FOR DIGITAL TACHOMETER**

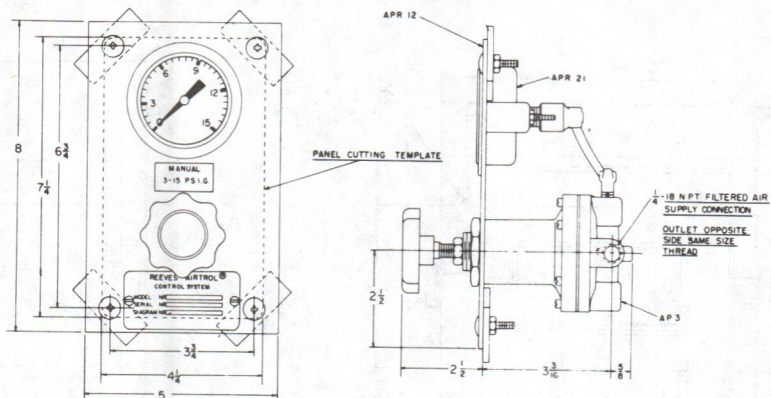


**DIMENSION SHEET—SD7100-10-D**

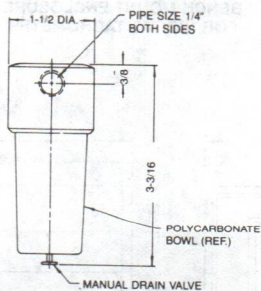


# Dimensions

## AIRTROL® INDICATING MANUAL CONTROL STATION AND FILTER



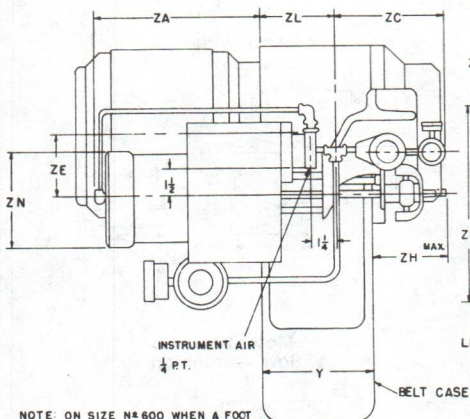
MANUAL INDICATING STATION  
DIMENSION SHEET — 2-64705



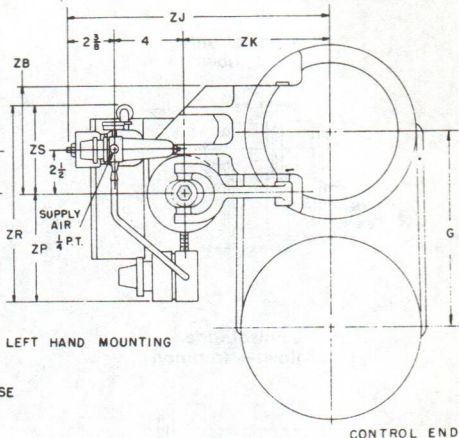
FILTER  
DIMENSION SHEET — 415113-40A

# Dimensions

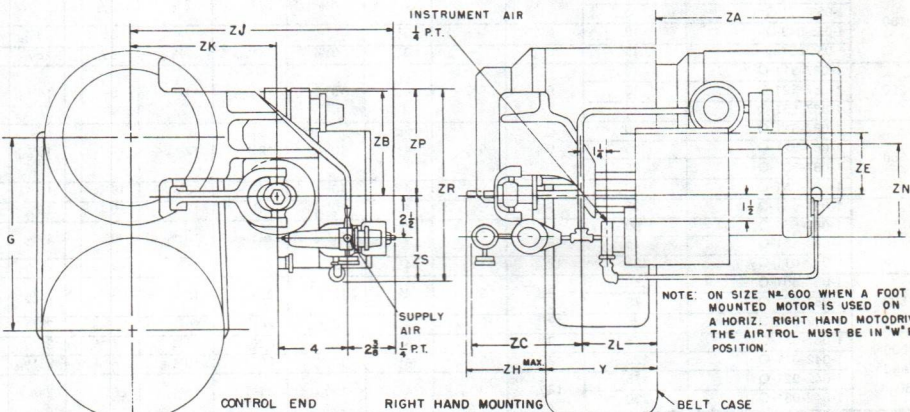
AIRTRON<sup>®</sup>



NOTE: ON SIZE N° 600 WHEN A FOOT MOUNTED MOTOR IS USED ON A HORIZ. LEFT HAND MOTODRIVE, THE AIRTRON MUST BE IN 'E' L.H. POSITION.



Unit	ZA	ZB	ZC	ZE	ZH	ZJ	ZK	ZL	ZN	ZP	ZR	ZS	Y	"G" Dim. When Using Belt Case No.		
														1	2	3
100	11 1/2	5 1/2	6 3/4	3 3/16	4 1/16	13 3/8	7	3 3/16	5 1/8	4 3/4	10 1/8	5 3/8	5 1/4	7 3/4	10 1/2	—
200	10 3/8	5 1/2	6 3/4	3 3/16	4 1/2	14 1/4	7 7/8	4 9/16	5 1/8	4 3/4	10 1/8	5 3/8	6 1/4	9 7/8	11 1/2	13
300	8 7/8	5 1/2	6 3/4	3 3/16	4 5/8	15	8 5/8	5 13/16	5 1/8	4 3/4	10 1/8	5 3/8	7 3/4	12 3/8	13 3/4	16 1/4
400	11 1/2	7 1/8	6 3/4	4 1/8	5 3/8	17	10 5/8	6 15/16	7	5 7/8	11 1/2	5 3/8	9 3/4	15 1/4	17 3/4	20 1/8
500	9 13/16	8 1/2	6 3/4	4 7/8	5 3/4	19 1/8	12 3/4	8 5/8	7	5 7/8	11 1/2	5 3/8	11	19 5/8	22 1/2	—
600	7 15/16	8 1/2	6 3/4	4 7/8	7 1/4	19 1/8	12 3/4	10 7/16	7	5 7/8	11 1/2	5 3/8	11 1/2	20 3/4	23 1/2	—



NOTE: ON SIZE N° 600 WHEN A FOOT MOUNTED MOTOR IS USED ON A HORIZ. RIGHT HAND MOTODRIVE, THE AIRTRON MUST BE IN 'W' R.H. POSITION.

DIMENSION SHEET — 3-64566

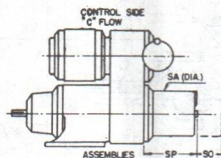
M1-191



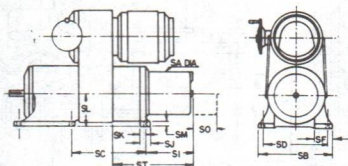
# Dimensions

## MAGNETIC BRAKES, STANDARD, WATER-TIGHT AND DUST-TIGHT (Sizes 100—600K)

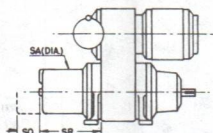
Control Side  
"c" flow



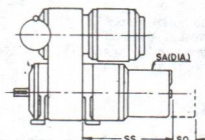
Motor Side  
"z" flow



Control Side  
"c" flow — trunion



Motor Side  
"z" flow — trunion



## DIMENSION (STANDARD, WATER-TIGHT AND DUST-TIGHT ENCLOSURES)

Size	Brake	Torque Ft.-Lbs.	SA	SI	SO	SP	SQ	SR	SS	ST
100	1-055-021-Q	3	6 <sup>7</sup> / <sub>16</sub>	—	3 <sup>1</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>16</sub>	7 <sup>7</sup> / <sub>16</sub>
	1-055-031-Q	6								
	1-055-043-Q	10								
	1-055-051-Q	15								
200	1-087-511-Q	10	9 <sup>3</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>16</sub>	16 <sup>3</sup> / <sub>16</sub>	14 <sup>1</sup> / <sub>16</sub>
	1-087-521-Q	15								
	1-087-531-Q	25								
300	1-087-511-Q	10	9 <sup>3</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>16</sub>	19 <sup>1</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	16 <sup>1</sup> / <sub>16</sub>
	1-087-521-Q	15								
	1-087-531-Q	25								
	1-087-551-Q	50								
400	1-087-531-Q	25	9 <sup>3</sup> / <sub>16</sub>	9 <sup>3</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>16</sub>	24 <sup>1</sup> / <sub>16</sub>	13 <sup>3</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>16</sub>
	1-087-551-Q	50								
	1-087-561-Q	75								
	1-042-011-QV	125								
500	1-087-551-Q	50	9 <sup>3</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>16</sub>	27 <sup>3</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>16</sub>	23 <sup>1</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>2</sub>
	1-087-561-Q	75								
	1-042-011-QV	125								
600 and 600K	1-087-561-QW	75	12 <sup>7</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>2</sub>	4 <sup>5</sup> / <sub>16</sub>	14 <sup>1</sup> / <sub>2</sub>	32 <sup>7</sup> / <sub>16</sub>	17 <sup>3</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>16</sub>
	1-042-011-Q	125								
	1-042-021-Q	175								
	1-042-031-Q	230								

# EXPLOSION PROOF BRAKES CLASS I GROUP D ONLY

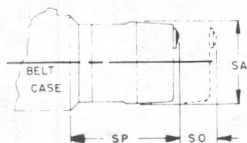
Units	100*				200		300			400			500		600
Lb/Ft.	3	6	9	10	10	25	10	25	50	25	50	75	50	75	75
Brake	52A	54	56	56	72	72B	72	72B	74	72B	74	76	74	76	76
SA	77/8				91/4		91/4			91/4			91/4		91/4
SB	—				13		151/4			183/8			23		231/2
SD	—				113/8		133/8			163/4			201/2		173/4
SH	—				59/16		615/16			83/4			111/4		133/16
SO	33/8				41/2		41/2			41/2			41/2		41/2
SP	10	105/16	103/8		1213/16		1211/16		133/16	137/16	1315/16	147/16	147/16	153/8	1513/16
SR	11	115/16	113/8		143/16		149/16		151/16	1511/16	163/16	1611/16	173/4	181/4	187/16
SS	—				1811/16		203/16		2011/16	23	231/2	24	265/16	2613/16	2813/16
ST	—				177/16		1811/16		193/16	203/4	211/4	213/4	233/16	2311/16	2515/32
SQ	—				201/2		223/16		2211/16	2611/16	273/16	2711/16	2913/16	303/16	331/2

# CLASS II GROUPS E, F, & G ONLY

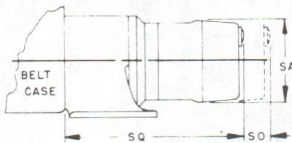
Units	100*				200		300			400			500		600
Lb/Ft.	3	6	9	10	10	25	10	25	50	25	50	75	50	75	75
Brake	52A	54	56	56	72	72B	72	72B	74	72B	74	76	74	76	76
SA	77/8				103/4		103/4			103/4			103/4		103/4
SB	—				13		151/4			183/8			23		231/2
SD	—				113/8		133/8			163/4			201/2		173/4
SH	—				59/16		615/16			83/4			111/4		133/16
SO	33/8				41/2		41/2			41/2			41/2		41/2
SP	10	109/16	103/8		117/16		117/16		1113/16	123/16	1211/16	133/16	133/16	141/8	149/16
SR	11	115/16	113/8		1213/16		133/16		1313/16	149/16	151/16	159/16	161/2	17	173/16
SS	—				177/16		1815/16		197/16	213/4	221/4	223/4	251/16	259/16	2725/32
ST	—				163/16		177/16		1713/16	191/2	20	201/2	2113/16	227/16	2513/32
SQ	—				191/4		2015/16		217/16	257/16	2515/16	267/16	283/16	291/16	321/4

## BRAKE LOCATION — Size 200-600 Motodrives

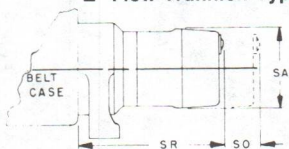
### Control Side "C" Flow



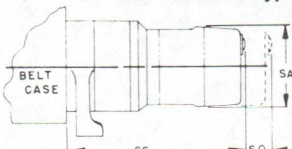
### Motor Side Alternate "Z" Flow



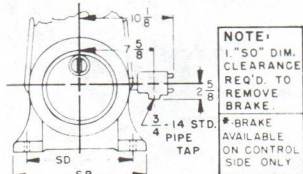
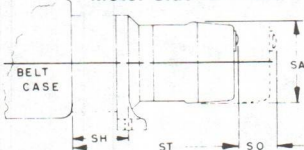
### Motor Side "Z" Flow Trunnion Type



### Control Side "C" Flow Trunnion Type



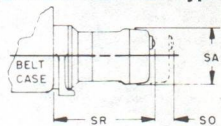
### Motor Side "Z" Flow



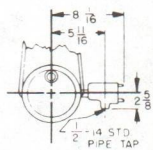
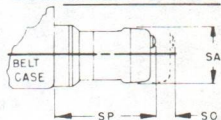
NOTE:  
1" SO" DIM. CLEARANCE REQ'D TO REMOVE BRAKE.  
\* BRAKE AVAILABLE ON CONTROL SIDE ONLY

## BRAKE LOCATION Size 100 Motdrive

### Control Side "C" Flow Trunnion Type



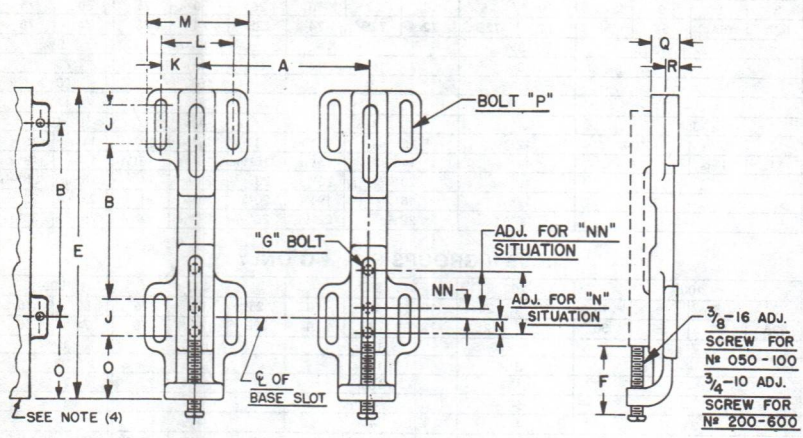
### Control Side "C" Flow





# Dimensions

## ADJUSTING RAILS



# Adjusting Rails

UNIT		RAIL ASSEMBLY	A	B	E	F	BOLT G (2)	J	K	L	M	N	MN	O	BOLT P	Q	R	ADJ.
SIZE & RED.	TYPE (3)																	
050. 051	STANDARD	702834-26-A	6.56	6.12	11.00	5.00	.38 - 1.75	1.56	1.06	2.12	3.00	—	—	1.12	.38	1.12	.44	2.03
050. 051	TRUNNION	702834-26-A	7.00	6.12	11.00	5.00	.38 - 1.75	1.56	1.06	2.12	3.00	—	—	1.12	.38	1.12	.44	3.03
052. 053	STANDARD	702834-26-A	6.12	6.12	11.00	5.00	.38 - 1.75	1.56	1.06	2.12	3.00	—	—	1.12	.38	1.12	.56	1.91
100. 111. 121	STD. VERT. INV. VERT.	702834-26-B	9.00	6.44	14.12	5.00	.50 - 1.50	2.50	1.50	3.00	4.00	.75	—	2.12	.38	1.12	.50	3.53
100. 111. 121	STD. HORIZ	702834-26-E	14.50	6.44	14.12	5.00	(1)	2.50	1.50	3.00	4.00	.75	—	2.12	.38	1.12	.50	3.53
100. 111. 121	TRUNNION	702834-26-B	8.62	6.44	14.12	5.00	.50 - 1.50	2.50	1.50	3.00	4.00	.75	—	2.12	.38	1.12	.50	3.53
112. 113	STD. VERT.	702834-26-B	10.25	6.44	14.12	5.00	.50 - 1.50	2.50	1.50	3.00	4.00	.75	—	2.12	.38	1.12	.50	3.53
112. 113	STD. HORIZ	702834-26-E	15.75	6.44	14.12	5.00	(1)	2.50	1.50	3.00	4.00	.75	—	2.12	.38	1.12	.50	3.53
200. 221. 231	TRUNNION	702834-26-F	9.62	13.75	22.25	10.00	.50 - 2.00	(4)	2.50	5.00	6.25	—	.50	6.00	.62	2.00	.75	3.50
200. 221. 231	INV. VERT. & STD.	702834-26-C	8.50	13.75	22.25	10.00	.50 - 2.00	(4)	2.50	5.00	6.25	1.00	—	6.00	.62	2.00	.75	4.62
122. 123 222. 223	STANDARD	702834-26-C	10.06	13.75	22.25	10.00	.50 - 2.00	(4)	2.50	5.00	6.25	1.00	—	6.00	.62	2.00	.75	4.62
300. 331. 341	TRUNNION	702834-26-G	12.12	13.75	22.25	10.00	.62 - 2.75	(4)	2.50	5.00	6.25	1.00	—	6.00	.62	2.00	.75	4.75
300. 331. 341	INV. VERT. & STD.	702834-26-D	11.31	13.75	22.25	7.00	.62 - 2.75	(4)	2.50	5.00	6.25	1.00	—	6.00	.62	2.00	.75	2.38
133. 232. 233 332. 333	STANDARD	702834-26-D	12.38	13.75	22.25	7.00	.62 - 2.75	(4)	2.50	5.00	6.25	1.00	—	6.00	.62	2.00	.75	2.38
400. 441. 451	TRUNNION	702834-26-K	14.12	13.75	22.25	7.00	.62 - 2.75	(4)	2.50	5.00	6.25	1.00	—	6.00	.62	2.00	.75	2.75
400. 441. 451	INV. VERT. & STD.	702834-26-J	15.88	19.75	31.25	10.00	.62 - 2.75	3.00	2.50	5.00	7.00	—	.75	4.50	.62	2.00	1.00	3.56
243. 342. 343 442. 443	STANDARD	702834-26-J	16.12	19.75	31.25	10.00	.62 - 2.75	3.00	2.50	5.00	7.00	—	.75	4.50	.62	2.00	1.00	3.56
500. 551. 561	TRUNNION	702834-26-H	17.25	19.75	31.25	10.00	.88 - 3.75	3.00	2.50	5.00	7.00	—	.50	4.50	.62	2.00	1.00	5.00
500. 551. 561	INV. VERT. & STD.	702834-26-L	18.00	19.75	31.25	10.00	.88 - 3.75	3.00	2.50	5.00	7.00	1.00	—	4.50	.62	2.00	1.00	4.50
353. 452. 453 552. 553. 652	STANDARD	702834-26-L	18.50	19.75	31.25	10.00	.88 - 3.75	3.00	2.50	5.00	7.00	1.00	—	4.50	.62	2.00	1.00	4.50
600. 661	TRUNNION	702834-26-L	17.75	19.75	31.25	10.00	.88 - 3.75	3.00	2.50	5.00	7.00	—	—	4.50	.62	2.00	1.00	5.50
600. 661	INV. VERT. & STD.	702834-26-L	22.00	19.75	31.25	10.00	.88 - 3.75	3.00	2.50	5.00	7.00	1.00	—	4.50	.62	2.00	1.00	4.00

1) Two bolts .50 x 2.00 and two bolts .50 x 1.50.

2) "G" Bolts for holding rails to MOTO DRIVE to have a lock washer, plain washer, and unfinished square nut (4 of each).

3) Rails cannot be used on single reducer assemblies 103, 103-A, 103-R, 103-L, 103-AR, 103-AL, 109-A, 109-AR, 109-AL, 115, 115-A, 119, 119-A, 127-A, 131-A (All Sizes). Also assemblies 109,

109-R, 109-L, 127, 131 (050 & 100 Only).

4) Rail design without mounting bolt slot.

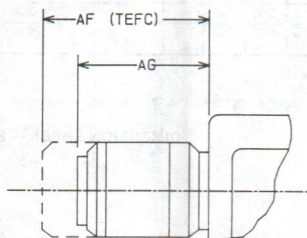
**DIMENSION SHEET — 600901-805**



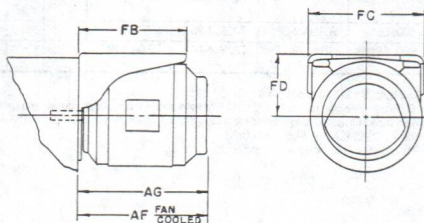
# Dimensions

## RELIANCE MOTOR FRAMES NEMA "T" SERIES STANDARD NEW LINE "T" SERIES

Drive Size	Motor Frame	Unit HP (Rating)		AF	AG	BISCC and Easy Clean AF
		1800	1200			
050	56C	1/4, 1/2, 3/4		10 <sup>1</sup> / <sub>16</sub>		
100	56CZ	1/4, 1/2, 3/4	3/4	9 <sup>7</sup> / <sub>8</sub>		
	56CZ	1	1	10 <sup>3</sup> / <sub>8</sub>		
	56CZ	1 1/2		11 <sup>1</sup> / <sub>8</sub>		
	145TC	2		11 <sup>1</sup> / <sub>8</sub>		
200	56CZ	1	1	10 <sup>1</sup> / <sub>16</sub>		
	56CZ	1 1/2		12 <sup>1</sup> / <sub>4</sub>		
	145TC	2		12 <sup>1</sup> / <sub>4</sub>		
	180TC	3	1 1/2	16 <sup>5</sup> / <sub>8</sub>		
		5	2			
300	180TC	3		16 <sup>1</sup> / <sub>16</sub>		
		5				
	210TC	7 1/2	3		16 <sup>7</sup> / <sub>16</sub>	18 1/2
400	210TC	10	5	19 <sup>3</sup> / <sub>8</sub>		
	210TC	7 1/2		17 1/2	14 <sup>9</sup> / <sub>16</sub>	16 <sup>5</sup> / <sub>8</sub>
	254TC	15	7 1/2	21 1/4	19	23
	256TC	20		22	20 <sup>3</sup> / <sub>4</sub>	
500	254TC	15		20 <sup>1</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>16</sub>
	256TC	20		22 <sup>1</sup> / <sub>16</sub>	20 <sup>7</sup> / <sub>16</sub>	
	284TC	25	15	22 <sup>7</sup> / <sub>8</sub>	20 <sup>3</sup> / <sub>8</sub>	
	286TC	30	20	24 <sup>3</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>8</sub>	
	324TC		25	26 <sup>1</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>4</sub>	
600	284TC	25		22 <sup>7</sup> / <sub>8</sub>	20 <sup>3</sup> / <sub>8</sub>	
	286TC	30		24 <sup>3</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>8</sub>	
	324TC	40	25	23 <sup>3</sup> / <sub>8</sub>	20 <sup>3</sup> / <sub>4</sub>	
	326TC	50	30	25 <sup>1</sup> / <sub>8</sub>	22 <sup>1</sup> / <sub>4</sub>	



SD6100-20-AH



2-64038

## MOTOR CONDUIT BOX LOCATIONS

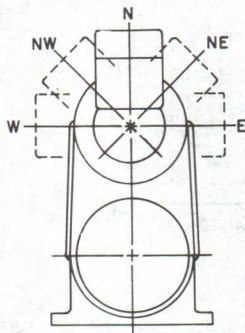
When the MOTO DRIVE, drive motor, conduit box location is not specified as a part of the motor modification description on an order write-up, the standard locations defined below will be furnished:

Motor Frame	Moto Drive Assembly	Standard Location
56C	All	Top or 12 o'clock
56CZ, 143TC & Larger	Vertical, Horizontal-Right Hand, and 45°	F-1 or Left Hand
56CZ, 143TC & Larger	Horizontal-Left Hand	F-2 or Right Hand

# Dimensions

## CONTROL POSITIONS

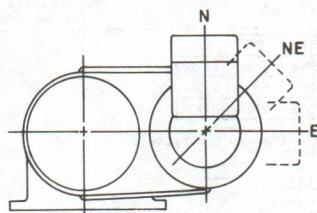
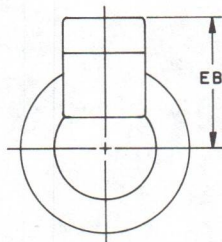
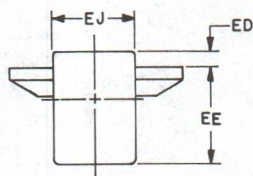
### STANDARD POSITIONS AND DIMENSIONS OF HEAVY DUTY ERC 050 — 300



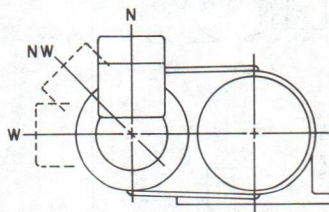
ERC will be furnished in standard position (N) unless otherwise specified.

NOTE — Size No. 050 available in positions "N", "E", "W", only.

Vertical "C" and "Z" Flow



Horizontal "C" and "Z" Flow



Horizontal "C" and "Z" Flow

SIZE	EB	ED	EE	EJ
050	6.12	.75	5.44	4.00
100	7.75	.75	6.38	4.31
200	9.25	.62	6.62	4.62
300	10.31	.56	6.69	4.62

DIMENSION SHEET NO. SD7100-01-D

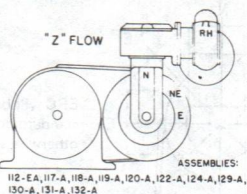
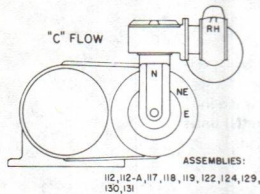


# Dimensions

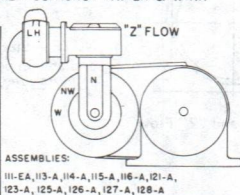
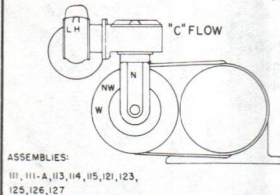
## CONTROL POSITIONS

### STANDARD POSITIONS AND DIMENSIONS OF HEAVY DUTY ERC, SIZES 400 — 600K

LH HORIZONTAL UNITS - POSITION N-RH STANDARD  
OPTIONAL POSITIONS: NE-RH & E-LH

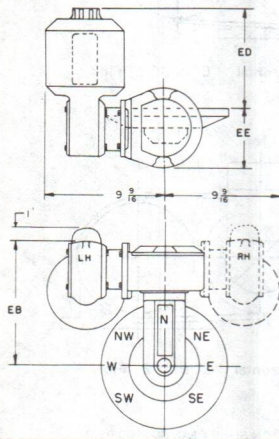


RH HORIZONTAL UNITS - POSITION N-LH STANDARD  
OPTIONAL POSITIONS: NW-LH & W-RH



SIZE	EB	EE	ED
400	12 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>
500	13 <sup>3</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>
600	16 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	6 <sup>3</sup> / <sub>16</sub>

NOTE: E.R.C. WILL BE FURNISHED IN STANDARD POSITIONS SHOWN UNLESS OTHERWISE SPECIFIED.

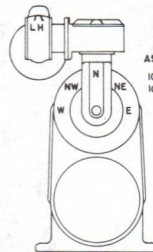


VERTICAL "C" FLOW UNITS

N-LH STANDARD POSITION

OPTIONAL POSITIONS:

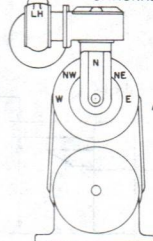
NW-LH  
E-LH  
N-RH  
NE-RH  
W-RH



VERTICAL "Z" FLOW UNIT  
N-LH STANDARD POSITION

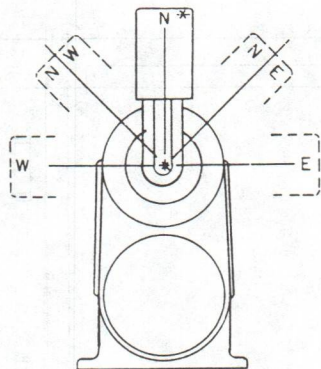
OPTIONAL POSITIONS:

NW-LH  
E-LH  
N-RH  
NE-RH  
W-RH



## CONTROL POSITIONS

STANDARD POSITIONS AND DIMENSIONS OF BALL SCREW ERC 400—600



"C" FLOW ASSEMBLIES

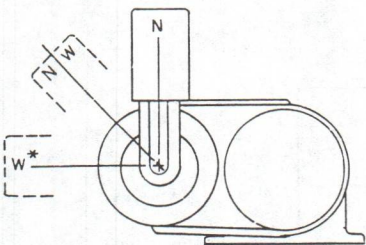
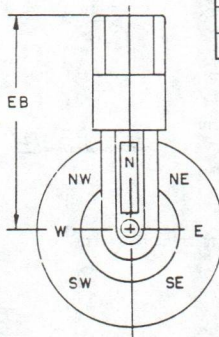
100, 100-A, 101, 102, 103  
105, 106, 107, 108, 109

"Z" FLOW ASSEMBLIES

100-EA, 101-A, 102-A  
103-A, 104-A, 105-A\*  
106-A, 107-A, 108-A  
109-A 110-A



Size	EB	EE
400	19 <sup>25</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>16</sub>
500	19 <sup>13</sup> / <sub>16</sub>	6 <sup>13</sup> / <sub>32</sub>
600	20 <sup>1</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>8</sub>

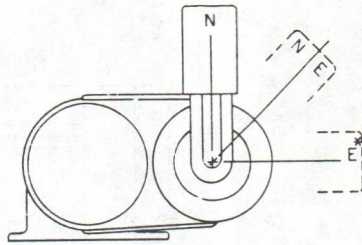


"C" FLOW ASSEMBLIES

111, 111-A, 113, 114, 115, 121  
123, 125, 126, 127

"Z" FLOW ASSEMBLIES

111-EA, 113-A, 114-A, 115-A  
116-A, 121-A\*, 123-A, 125-A  
126-A, 127-A, 128-A



"C" FLOW ASSEMBLIES

112, 112-A, 117, 118, 119, 122  
124, 129, 130, 131

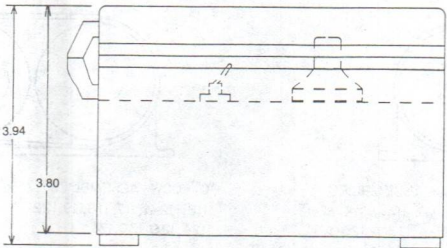
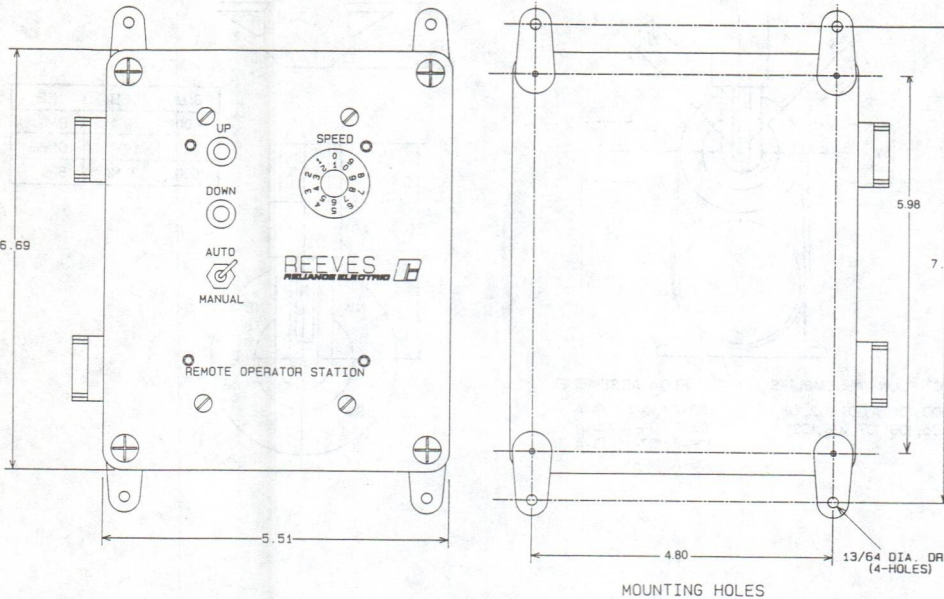
"Z" FLOW ASSEMBLIES

112-EA, 117-A, 118-A, 119-A  
120-A, 122-A\*, 124-A, 129-A  
130-A, 131-A, 132-A



Dimensions

RAC CONTROL HEAD ASSEMBLY

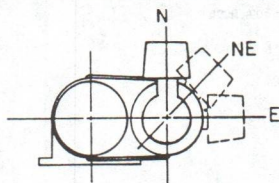


# Dimensions

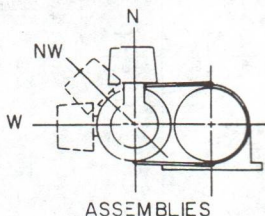
## CONTROL POSITIONS

STANDARD POSITIONS AND DIMENSIONS FOR RAC SERVOMOTOR, SIZES 100-300K

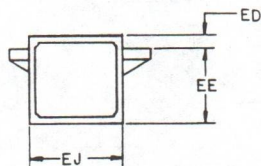
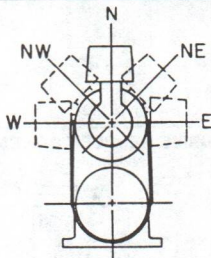
### LEFT HAND HORIZONTAL "C" & "Z" FLOW UNITS



### RIGHT HAND HORIZONTAL "C" & "Z" FLOW UNITS



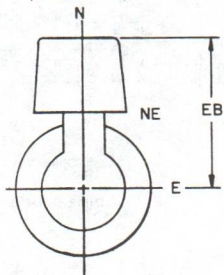
### VERTICAL "C" & "Z" FLOW UNITS



R.A.C. WILL BE FURNISHED IN  
STANDARD POSITION (N) UNLESS  
OTHERWISE SPECIFIED.

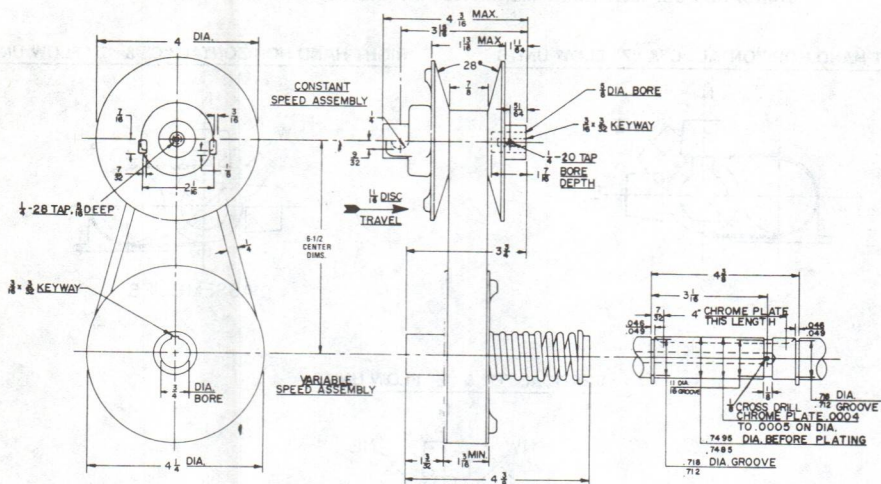
#### R.A.C.

SIZE	EB	ED	EE	EJ
100	9.50	.78	5.47	6.25
200	10.00	.62	5.62	6.25
300	14.88	1.12	5.88	7.00



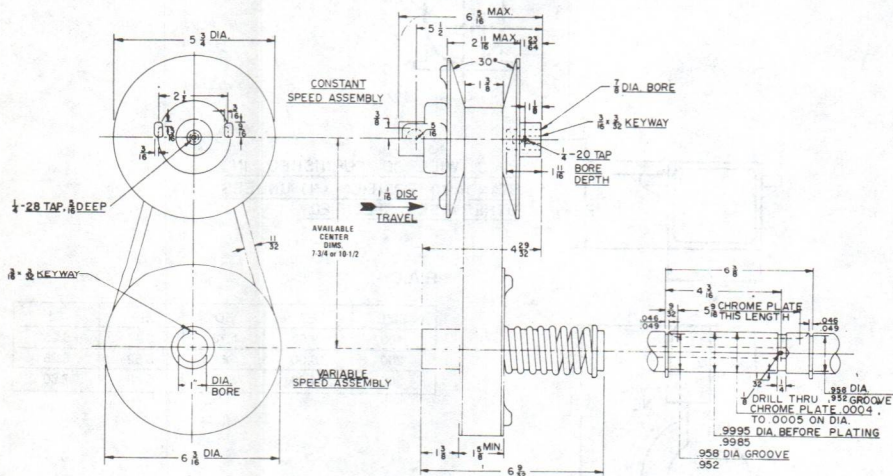


## MOTO DRIVE REDUCER INTERNALS



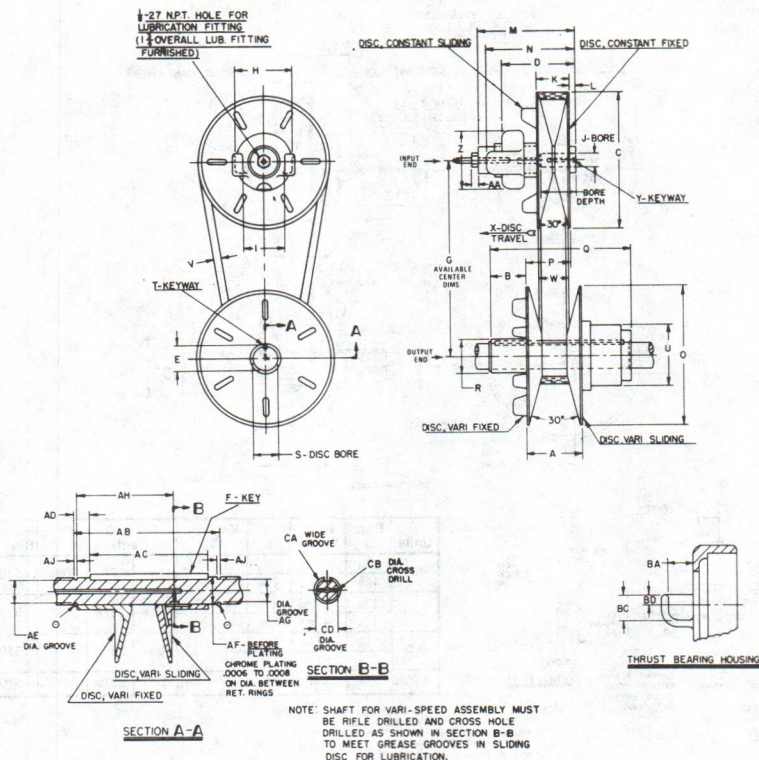
DIMENSION SHEET — 2-63918

### MOTO DRIVE REDUCER INTERNALS SIZE 100



DIMENSION SHEET — 2-63743

## MOTO DRIVE REDUCER INTERNALS (200-300)



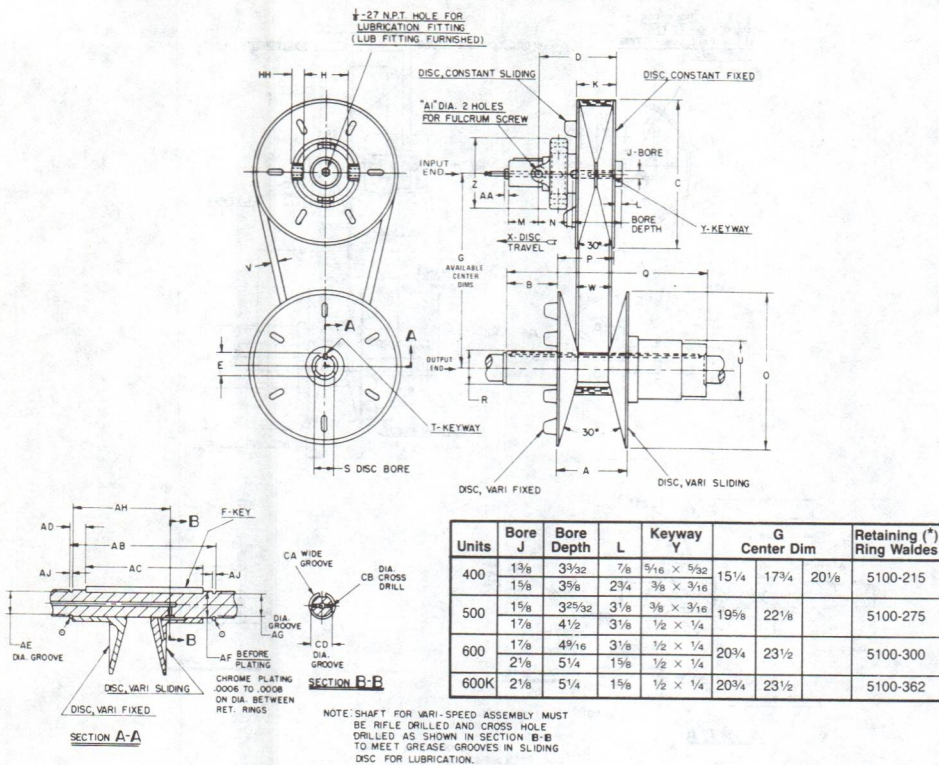
Units	AA	AB	AC	AD	AE	AF	AG	AH	AJ	BA	BC	BD	CA	CB	CD	F#	T
200	9/16	89/16	77/16	29/32	1.374 1.366	1.4370 1.4360	1.374 1.366	5/8	.056 .060	23/32	1 1/16	1/4	3/8	1/8	1 1/8	1/4 x 1/4	1/4 x 1/8
300	9/16	1125/32	915/16	15/16	1.555 1.545	1.6245 1.6235	1.555 1.545	7/8	.068 .072	3 1/2	1	3/8	3/8	1/8	1 1/8	3/8 x 3/8	3/8 x 3/16

Units	A	B	C	E	H	I	K	O	P	Q	R	S	U	V	W	X	Z
200	3/8	29/32	7/8	1.553 1.556	3/8	2 1/16	27/64	8 1/4	2 3/4	8 1/2	2 1/8	17/16	325/64	13/32	125/32	1 1/2	37/16
300	4 1/8	2 3/4	9 1/2	1.792 1.795	3 1/16	3 1/4	29/16	10 1/4	3 3/4	11 3/4	2 3/8	1 5/8	3 1/2	1/2	2 1/8	1 1/16	4 3/8

Units	Bore J	Bore Depth	D	L	M	N	Keyway Y	G Center Dims			Retaining (*) Ring Walides
200	7/8	13 1/2	5 1/2	1 1/2	6 7/8	6 1/2	3/8 x 3/32	9 7/8	11 1/2	13	5100-143
	1 1/8	21 5/8	6 5/8	2 1/8	7 1/2	7 3/8	1/4 x 1/8				
300	1 1/8	21 1/8	6 7/8	1 7/8	9	7 7/8	1/4 x 1/8	12 3/8	13 3/4	16 1/4	5100-162
	1 3/8	3 1/8	7 1/8	2 1/2	9 5/8	8 1/4	5/8 x 5/32				



## MOTO DRIVE REDUCER INTERNALS (400, 500, 600, 600K)



Units	Bore J	Bore Depth	L	Keyway Y	G Center Dim	Retaining (*) Ring Walde
400	1 3/8	3 3/32	7/8	5/16 x 5/32	15 1/4	17 3/4
	1 5/8	3 3/8	2 3/4	3/8 x 3/16	20 1/8	5100-215
500	1 5/8	3 25/32	3 1/8	3/8 x 3/16	19 5/8	22 1/8
	1 7/8	4 1/2	3 1/8	1/2 x 1/4	20 3/4	23 1/2
600	1 7/8	4 9/16	3 1/8	1/2 x 1/4	20 3/4	23 1/2
	2 1/8	5 1/4	1 5/8	1/2 x 1/4	20 3/4	23 1/2
600K	2 1/8	5 1/4	1 5/8	1/2 x 1/4	20 3/4	23 1/2

Units	A	B	C	D	E	H	K	M	N	O	P	Q	R	S	U	V	W	X	Z
400	4 15/16	3 3/64	11 1/2	6 1/4	2.410 2.413	5 5/8	3 1/32	2 3/16	2 3/8	12 7/16	3 15/16	14 3/8	3 1/4	2 3/16	4 3/4	5/8	2 5/8	2	7
500	5 7/8	3 7/64	14	7 1/4	3.029 3.032	7 9/16	3 7/16	2 7/16	2 9/16	15 3/8	4 11/16	17 3/16	3 7/8	2 3/4	6	3/4	3	2	8 7/8
600	6 3/32	4 5/32	15	9 7/8	3.329 3.332	6	3 11/16	3/8	4 15/16	15 3/4	4 7/8	19 1/8	4 3/8	3	6	1 3/16	3 3/16	2 3/8	9
600K	5 1/4	4 9/64	15	9 7/8	4.010 4.013	6	3 5/16	3/8	4 15/16	15 3/4	4 7/8	19 1/8	5	3 3/8	6 7/8	2 3/32	2 3/4	2 1/32	9

Units	AA	AB	AC	AD	AE	AF	AG	AH	AJ	CA	CB	CD	HH	F	T	AI
400	9 1/16	14 7/16	13	2 1/64	2.038 2.026	2.1870 2.1860	2.038 2.026	8 11/16	.086 .091	1/2	3/16	2 1/8	2 1/32	1/2 x 1/2	1/2 x 1/4	9/16
500	9 1/16	17 3/8	15 7/8	9 1/16	2.631 2.619	2.7495 2.7485	2.631 2.619	9 23/32	.103 .108	1/2	3/16	2 11/16	2 1/32	5/8 x 5/8	5/8 x 5/16	9/16
600	9 1/16	19 5/16	17 3/8	2 3/32	2.844 2.832	2.9995 2.9980	2.844 2.832	10 13/32	.103 .108	3/4	3/16	2 11/16	1 1/16	3/4 x 3/4	3/4 x 3/8	1 1/16
600K	9 1/16	19 5/16	17 3/8	7/8	3.441 3.429	3.6245 3.6230	3.441 3.429	10 3/8	.120 .125	3/4	3/16	3 3/16	1 1/16	7/8 x 7/8	7/8 x 7/16	1 1/16

# Right Angle Output Ratings

## RIGHT ANGLE REDUCER RATED HORSEPOWER & TORQUE OUTPUT (No. 050, 100, 200, 300, 400)

Input HP	Max. Output Speed	2 to 1		3 to 1		4 to 1		5 to 1		Input HP	Max. Output Speed	2 to 1		3 to 1		4 to 1		5 to 1	
		Output HP	Torque In-Lbs	Output HP	Torque In-Lbs	Output HP	Torque In-Lbs	Output HP	Torque In-Lbs			Output HP	Torque In-Lbs	Output HP	Torque In-Lbs	Output HP	Torque In-Lbs	Output HP	Torque In-Lbs
1/4	280	.15	33.8	.15	33.8	.15	33.8	.15	33.8	1	280	.84	189	.84	189	.84	189	.84	189
	230	.16	43.8	.16	43.8	.16	43.8	.15	41.1		230	.84	230	.84	230	.84	230	.84	230
	190	.16	53.1	.16	53.1	.16	53.1	0.15	49.7		190	.84	275	.84	275	.82	270	.82	270
	155	.17	69.1	.17	69.1	.16	65.0	.15	61.0		155	.83	335	.83	335	.81	325	.81	325
	125	.17	85.7	.17	85.7	.16	80.6	.15	75.8		125	.82	410	.79	395	.82	410	.79	395
	100	.17	107	.17	107	.16	100	.15	94.5		100	.79	495	.79	495	.79	495	.77	485
	84	.16	120	.16	120	.16	120	.14	105		84	.79	590	.79	590	.79	590	.75	560
	68	.16	148	.16	148	.14	130	.13	120		68	.75	695	.75	695	.75	695	.71	655
	56	.15	169	.15	169	.14	157	.13	146		56	.70	785	.70	785	.70	785	.67	750
	45	.14	196	.14	196	.13	182	.13	182		45	.69	965	.69	965	.69	965	.60	1120
	37	.14	238	.14	238	.13	220	.15	255		37	.81	1375	.81	1375	.81	1375	.77	1310
	30	.13	273	.13	273	.16	336	.15	315		30	.81	1700	.81	1700	.77	1615	.76	1595
1/2	25	.13	328	.13	328	.16	403	.15	378	1 1/2	25	.80	2015	.80	2015	.77	1940	.75	1890
	20	.17	536	.16	504	.16	504	.14	441		20	.77	2425	.77	2425	.78	2455	.75	2360
	16.5	.17	649	.16	610	.14	534	.13	496		16.5	.74	2825	.74	2825	.74	2825	.69	2630
	13.5	.17	793	.14	653	.13	607	.13	607		13.5	.73	3405	.73	3405	.73	3405	.69	3220
	11.0	.15	859	.14	800	.13	744	.13	744		11	.68	3890	.68	3890	.69	3950	.66	3780
	9.0	.14	980	.14	980	.13	910	.13	910		9	.68	4760	.68	4760	.66	4620	—	—
	7.5	.14	1176	.13	1090	.13	1090	.13	1090		7.5	.65	5460	.65	5460	—	—	—	—
	6.0	.14	1470	.13	1365	.13	1365	.13	1365		350	1.28	230	1.28	230	1.28	230	1.28	230
	5.0	.14	1764	.14	1764	.13	1638	—	—		280	1.28	285	1.28	285	1.28	285	1.28	285
	4.0	.13	2047	.13	2047	—	—	—	—		230	1.28	350	1.28	350	1.28	350	1.26	345
	280	.38	85.5	.38	85.5	.38	85.5	.38	85.5		190	1.29	425	1.29	425	1.29	425	1.26	415
	230	.38	104	.38	104	.38	104	.37	100		155	1.26	510	1.26	510	1.26	510	1.26	510
3/4	190	.39	129	.39	129	.38	126	.37	122	2	125	1.26	635	1.26	635	1.26	635	1.26	635
	155	.40	162	.40	162	.37	150	.37	150		100	1.26	790	1.26	790	1.25	785	1.22	765
	125	.38	191	.38	191	.37	186	.36	181		84	1.20	900	1.20	900	1.20	900	1.28	961
	100	.38	239	.38	239	.36	227	.36	227		68	1.28	1185	1.28	1185	1.28	1185	1.28	1185
	84	.38	285	.38	285	.35	262	.33	247		56	1.28	1440	1.28	1440	1.28	1440	1.24	1395
	68	.36	333	.36	333	.34	315	.32	296		45	1.26	1760	1.26	1760	1.24	1735	1.24	1735
	56	.34	382	.34	382	.32	360	.31	349		37	1.24	2110	1.24	2110	1.24	2110	1.22	2075
	45	.32	448	.32	448	.31	434	.30	420		30	1.27	2665	1.27	2665	1.24	2600	1.24	2600
	37	.31	527	.31	527	.36	613	.36	613		25	1.24	3120	1.24	3120	1.24	3120	1.19	2995
	30	.30	630	.30	630	.36	756	.37	775		20	1.24	3900	1.24	3900	1.19	3745	1.13	3560
	25	.37	932	.37	932	.37	932	.35	880		16.5	1.14	4350	1.14	4350	1.14	4350	1.13	4310
	20	.37	1165	.37	1165	.32	1000	.32	1000		13.5	1.14	5320	1.14	5320	1.14	5320	1.10	5130
	16.5	.36	1375	.32	1220	.32	1220	.30	945		11	1.03	5900	1.03	5900	1.04	5925	1.02	5840
1	13.5	.32	1490	.32	1490	.30	1400	.30	1400	2 1/2	9	1.03	7210	1.03	7210	1.00	7000	—	—
	11.0	.31	1775	.30	1715	.29	1660	.29	1660		7.5	.99	8315	.99	8315	—	—	—	—
	9.0	.31	2170	.30	2100	.29	2030	.28	1960		350	1.72	310	1.72	310	1.72	310	1.72	310
	7.5	.30	2520	.28	2350	.30	2520	.28	2350		280	1.75	390	1.75	390	1.75	390	1.75	390
	6.0	.30	3150	.30	3150	.30	3150	.29	3045		230	1.75	475	1.75	475	1.75	475	1.74	475
	5.0	.29	3650	.29	3650	.29	3650	—	—		190	1.75	580	1.75	580	1.74	575	1.71	565
	4.0	.29	4565	.29	4565	—	—	—	—		155	1.74	705	1.74	705	1.71	695	1.70	690
	280	.61	137	.61	137	.61	137	.61	173		125	1.71	860	1.71	860	1.70	855	1.64	825
	230	.61	167	.61	167	.61	167	.60	164		100	1.70	1070	1.70	1070	1.80	1130	1.71	1075
	190	.61	200	.61	200	.61	200	.59	195		84	1.78	1335	1.78	1335	1.78	1335	1.70	1275
	155	.61	248	.61	248	.61	248	.58	235		68	1.73	1600	1.73	1600	1.73	1600	1.70	1575
	125	.60	300	.60	300	.58	290	.57	285		56	1.73	1945	1.73	1945	1.72	1935	1.70	1910
1 1/4	100	.58	365	.58	365	.57	359	.52	325	3	45	1.72	2405	1.72	2405	1.72	2405	1.70	2380
	84	.57	425	.57	425	.52	390	.50	375		37	1.72	2925	1.72	2925	1.72	2925	1.68	2860
	68	.53	490	.53	490	.52	480	.50	460		30	1.72	3610	1.72	3610	1.67	3505	1.68	3525
	56	.52	585	.52	585	.52	585	.50	560		25	1.67	4205	1.67	4205	1.67	4205	1.61	4055
	45	.51	714	.51	714	.50	700	.48	670		20	1.67	5260	1.67	5260	1.67	5260	1.54	4850
	37	.48	815	.48	815	.48	815	.57	970		16.5	1.54	5880	1.54	5880	1.54	5880	1.39	5305
	30	.46	965	.46	965	.46	965	.55	1155		13.5	1.54	7185	1.54	7185	1.39	6485	1.39	6485
	25	.59	1485	.59	1485	.57	1435	.51	1285		11	1.39	7960	1.39	7960	1.39	7960	1.39	7960
	20	.56	1760	.56	1760	.56	1760	.51	1605		9	1.39	9730	1.39	9730	1.39	9730	1.35	9450
	16.5	.52	1985	.52	1985	.52	1985	.51	1945		7.5	1.33	11150	1.33	11150	1.33	11150	1.27	10660
1 3/4	13.5	.52	2425	.52	2425	.52	2425	.51	2380	3 1/2	6	1.27	13300	1.27	13300	1.27	13300	—	—
	11	.50	2860	.50	2860	.51	2920	.49	2805		5	1.25	15750	1.25	15750	—	—	—	—
	9	.49	3430	.49	3430	.49	3430	.47	3290		4	1.23	19350	—	—	—	—	—	—
	7.5	.49	4115	.49	4115	.45	3780	.45	3780										
	6	.45	4725	.45	4725	.45	4725	.45	4725										

NOTE: Torque rating (inch-pounds) may be determined by applying the following formula:

$$HP \times 63025 \\ \text{MAX. OUTPUT SPEED}$$



# Right Angle Output Ratings

**RIGHT ANGLE REDUCER (Continued)**  
**RATED HORSEPOWER & TORQUE OUTPUT**  
**(No. 050, 100, 200, 300, 400)**

Input HP	Max. Output Speed	2 to 1		3 to 1		4 to 1		5 to 1	
		Output HP	Torque In-Lbs	Output HP	Torque In-Lbs	Output HP	Torque In-Lbs	Output HP	Torque In-Lbs
3	350	2.64	475	2.64	475	2.64	475	2.64	475
	280	2.66	595	2.66	595	2.66	595	2.66	595
	230	2.66	725	2.66	725	2.66	725	2.66	725
	190	2.67	885	2.67	885	2.66	880	2.72	900
	155	2.63	1065	2.63	1065	2.72	1105	2.72	1105
	125	2.70	1360	2.70	1360	2.72	1370	2.72	1370
	100	2.69	1695	2.69	1695	2.62	1650	2.62	1650
	84	2.64	1980	2.64	1980	2.64	1980	2.26	1965
	68	2.64	2445	2.64	2445	2.64	2445	2.62	2425
	56	2.64	2970	2.64	2970	2.64	2970	2.59	2910
	45	2.64	3695	2.64	3695	2.59	3625	2.59	3625
	37	2.64	4495	2.64	4495	2.59	4410	2.59	4410
5	30	2.57	5395	2.57	5395	2.51	5270	2.48	5200
	25	2.57	6475	2.57	6475	2.48	6250	2.36	5945
	20	2.50	7875	2.50	7875	2.36	7430	2.33	7335
	16.5	2.49	9505	2.40	9160	2.33	8895	2.33	8895
	13.5	2.33	10850	2.33	10850	2.33	10850	1.98	9240
	11	2.17	12430	2.17	12430	2.17	12430	2.19	12500
	9.0	2.05	14350	2.05	14350	2.05	14350	2.05	14350
	7.5	2.03	17000	2.03	17000	2.03	17000	1.96	16460
	6.0	1.96	20550	1.96	20550	1.96	20550	—	—
	5.0	1.93	24300	1.93	24300	—	—	—	—
	350	4.54	815	4.54	815	4.54	815	4.54	815
	280	4.54	1020	4.54	1020	4.54	1020	4.50	1010
7 1/2	230	4.54	1240	4.54	1240	4.46	1220	4.46	1220
	190	4.51	1495	4.51	1495	4.51	1495	4.51	1495
	155	4.51	1830	4.51	1830	4.51	1830	4.51	1830
	125	4.48	2255	4.48	2255	4.48	2255	4.48	2255
	100	4.46	2805	4.46	2805	4.46	2805	4.46	2805
	84	4.46	3345	4.46	3345	4.46	3345	4.46	3345
	68	4.45	4120	4.45	4120	4.45	4120	4.39	4065
	56	4.45	5000	4.45	5000	4.39	4935	4.39	4935
	45	4.45	6230	4.45	6230	4.39	6145	4.39	6145
	37	4.38	7455	4.38	7455	4.39	7475	4.26	7250
	30	4.33	9090	4.33	9090	4.26	8945	4.26	8945
	25	4.33	10900	4.33	10900	4.15	10450	4.06	10200
10	20	4.07	12800	4.07	12800	3.98	12500	3.65	11500
	16.5	3.92	14950	3.92	14950	3.70	14130	3.70	14130
	13.5	3.87	18050	3.87	18050	3.50	16300	3.50	16300
	11	3.75	21480	3.75	21480	—	—	—	—
	9.0	3.54	24750	3.54	24750	3.50	24500	—	—
	350	6.93	1245	6.93	1245	6.93	1245	—	—
	280	6.86	1540	6.86	1540	6.86	1540	6.86	1540
	230	6.51	1780	6.51	1780	6.51	1780	6.51	1780
	190	6.79	2250	6.79	2250	6.79	2250	6.79	2250
	155	6.77	2750	6.77	2750	6.77	2750	6.77	2750
	125	6.77	3410	6.77	3410	6.77	3410	6.77	3410
	100	6.77	4265	6.77	4265	6.77	4265	6.77	4265
15	84	6.77	5075	6.77	5075	6.77	5075	6.77	5075
	68	6.77	6270	6.77	6270	6.77	6270	6.77	6270
	56	6.77	7615	6.77	7615	6.77	7615	6.64	7470
	45	6.73	9420	6.73	9420	6.42	8985	6.42	8985
	37	6.42	10900	6.42	10900	6.42	10900	6.37	10900
	30	6.37	13350	6.37	13350	6.37	13350	6.37	13350
	25	6.36	16000	6.36	16000	6.36	16000	6.24	15700
	20	6.23	19600	6.23	19600	6.23	19600	—	—
	16.5	6.04	23000	6.04	23000	—	—	—	—
	350	9.18	1650	9.18	1650	9.11	1640	9.11	1640
	280	9.11	2045	9.11	2045	9.11	2045	9.11	2045
	230	9.09	2490	9.09	2490	8.80	2410	8.80	2410
20	190	8.80	2915	8.80	2915	8.80	2915	8.70	2880
	155	8.80	3575	8.80	3575	8.80	3575	8.80	3575
	125	8.74	4400	8.74	4400	8.55	4305	8.90	4485
	100	8.55	5385	8.55	5385	8.0	5670	8.90	5600
	84	8.0	6750	8.0	6750	8.84	6630	8.84	6630
	68	8.0	8335	8.0	8335	8.93	8270	8.62	7985
	56	8.91	10000	8.91	10000	8.93	10000	8.62	9695
	45	8.62	12050	8.62	12050	8.62	12050	8.60	12000
	37	8.62	14650	8.62	14650	8.60	14600	8.56	14550
	30	8.56	17950	8.56	17950	8.56	17950	8.35	17500
	25	8.56	21550	8.56	21550	8.42	21200	8.12	20450

**RIGHT ANGLE REDUCER**  
**RATED HORSEPOWER & TORQUE OUTPUT**  
**(No. 050 thru 300) CLASS M —**  
**MAXIMUM SPEED RANGE**

Input HP	¼ HP		½ HP		¾ HP		1 HP	
¼ Thru ½ HP Maximum Output Speed	Output HP	Torque In-Lbs	Output HP	Torque In-Lbs	Maximum Output Speed	Output HP	Torque In-Lbs	
485	.13	16.9	.35	45.4	466	.59	79.8	
383	.13	21.4	.35	57.6	366	.58	99.8	
323	.13	25.3	.35	68.2	311	.58	117	
270	.13	30.3	.35	81.6	259	.57	138	
242	.13	33.8	.34	88.5	233	.57	154	
194	.13	42.2	.34	110	186	.55	186	
162	.12	46.7	.32	124	155	.51	207	
121	.12	62.5	.32	167	117	.50	269	
97.0	.12	77.9	.30	195	93.2	.48	324	
81.0	.12	93.3	.30	233	77.7	.48	389	
69.2	.13	118	.34	309	66.6	.57	539	
56.5	.13	145	.34	379	54.2	.56	651	
48.0	.13	170	.33	407	46.1	.54	738	
40.0	.13	189	.31	486	38.5	.50	818	
33.6	.12	225	.31	581	32.4	.50	972	
30.0	.12	252	.31	651	28.8	.49	1070	
25.2	.12	300	.31	775	24.3	.49	1270	
20.2	.12	374	.29	904	19.4	.47	1525	
16.2	.12	467	.28	1085	16.2	.47	1825	
10.8	.12	700	.28	1585	10.8	.46	2680	

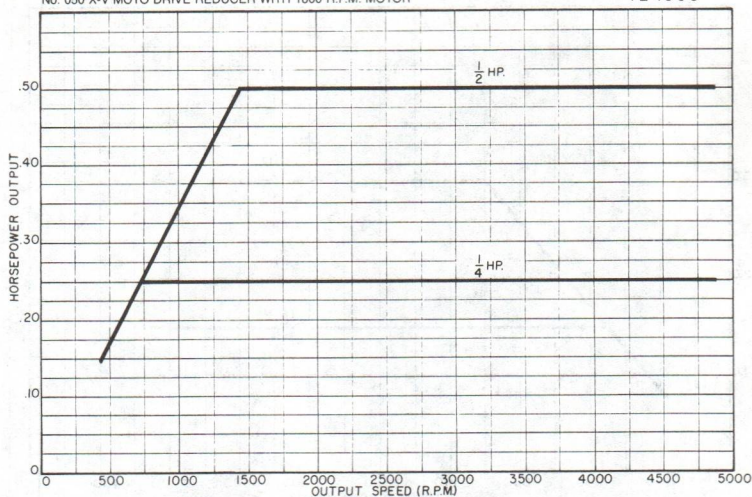
Input HP	1 HP		1½ HP		2 HP	
1 Thru 1½ HP-Max. Output Speed	Output HP	Torq. In- Lbs	Output HP	Torq. In- Lbs	Output HP	Torq. In- Lbs
420	.82	123	1.28	192	1.72	258
331	.80	152	1.25	238	1.72	327
280	.80	180	1.25	281	1.70	382
233	.78	211	1.25	338	1.70	459
210	.78	234	1.24	372	1.68	504
168	.76	285	1.21	453	1.64	615
140	.75	337	1.16	522	1.71	769
117	—	—	1.26	678	1.71	920
105	.71	426	1.25	750	1.69	1010
84	.79	595	1.23	922	1.69	1265
70	.79	714	1.23	1105	1.69	1520
60	.78	819	1.23	1290	1.67	1750
48.8	.76	981	1.19	1535	1.67	2155
41.6	.74	1120	1.19	1802	1.61	2435
34.7	.73	1329	1.14	2065	1.53	2775
29.2	.70	1510	1.14	2460	1.53	3300
25.9	.70	1700	1.07	2600	1.44	3500
21.9	.70	2010	1.07	3075	1.44	4140
17.5	.67	2450	1.03	3770	1.39	5090
14.6	.65	2800	—	—	—	—

Input HP	3 HP		5 HP		7½ HP	
1 Thru 1½ HP-Max. Output Speed	Output HP	Torq. In- Lbs	Output HP	Torq. In- Lbs	Output HP	Torq. In- Lbs
420	2.64	396	4.51	676	6.79	1015
331	2.64	502	4.51	858	6.79	1290
280	2.57	578	4.48	1005	6.74	1515
233	2.55	689	4.48	1210	6.74	1820
210	2.64	792	4.51	1350	6.79	2035
168	2.64	990	4.51	1690	6.79	2545
140	2.63	1180	4.48	2015	6.74	3030
117	2.63	1415	4.48	2410	6.74	3625
105	2.60	1560	4.38	2625	6.69	4010
84	2.60	1950	4.35	3260	6.63	4970
70	2.60	2340	4.35	3915	6.63	5965
60	2.60	2730	4.32	4535	—	—
48.8	2.50	3225	4.28	5525	—	—
41.6	2.50	3785	—	—	—	—
34.7	2.38	4320	—	—	—	—
29.2	2.38	5130	—	—	—	—
25.9	—	—	—	—	—	—
21.9	—	—	—	—	—	—
17.5	—	—	—	—	—	—
14.6	—	—	—	—	—	—

# Performance Rating Curves—MOTO DRIVE

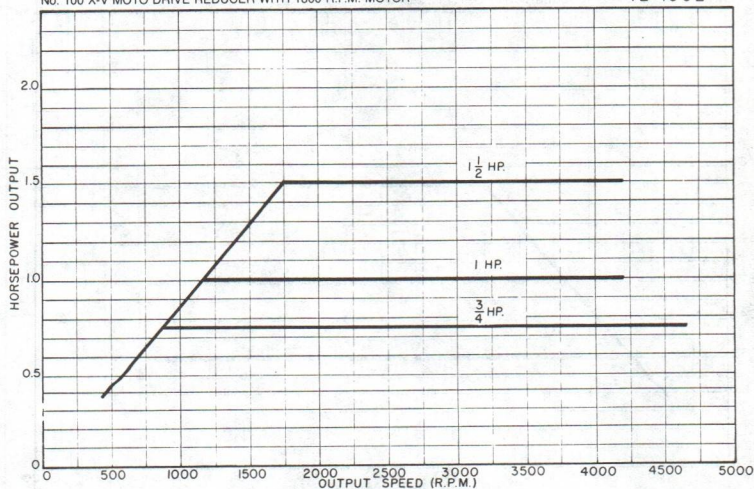
No. 050 X-V MOTO DRIVE REDUCER WITH 1800 R.P.M. MOTOR

TL 1000



No. 100 X-V MOTO DRIVE REDUCER WITH 1800 R.P.M. MOTOR

TL 1002



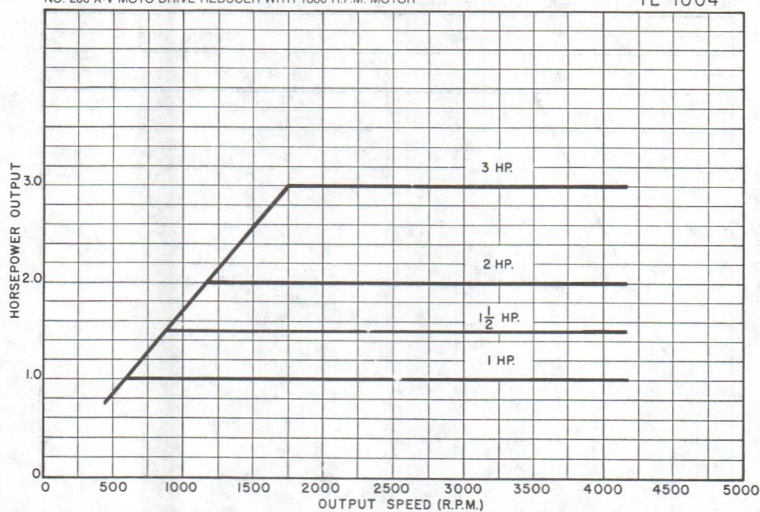
Belt case rating curves are a graphic representation of all catalog speed and horsepower ratings for non-g geared MOTO DRIVE Reducers. The maximum horsepower ratings are determined from percentages of belt speed drop consistent with acceptable belt life.



# Performance Rating Curves—MOTO DRIVE

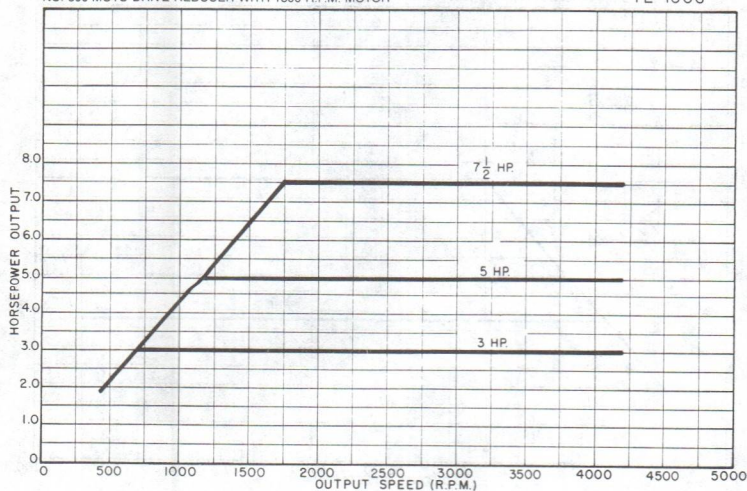
NO. 200 X-V MOTO DRIVE REDUCER WITH 1800 R.P.M. MOTOR

TL 1004



NO. 300 MOTO DRIVE REDUCER WITH 1800 R.P.M. MOTOR

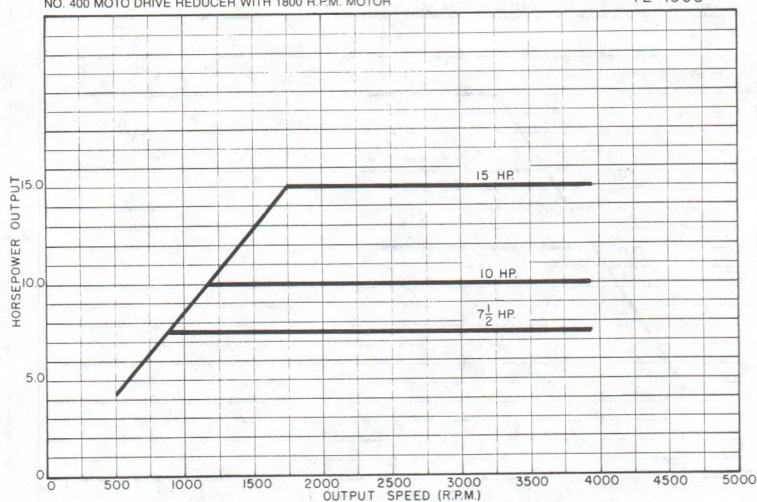
TL 1006



# Performance Rating Curves—MOTO DRIVE

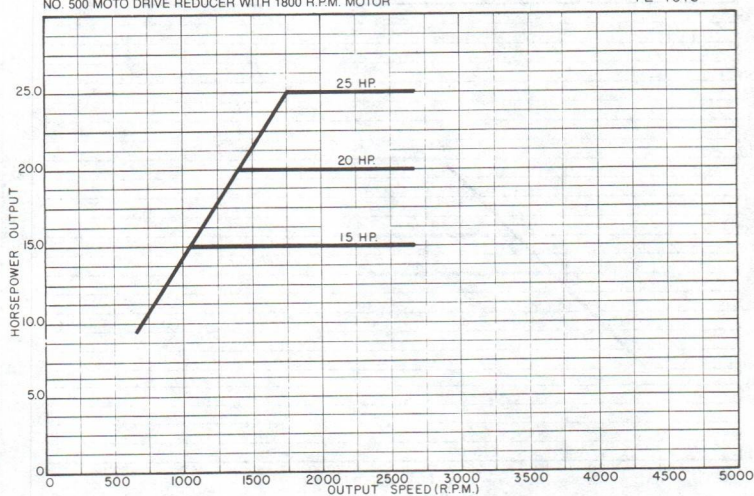
NO. 400 MOTO DRIVE REDUCER WITH 1800 R.P.M. MOTOR

TL 1008



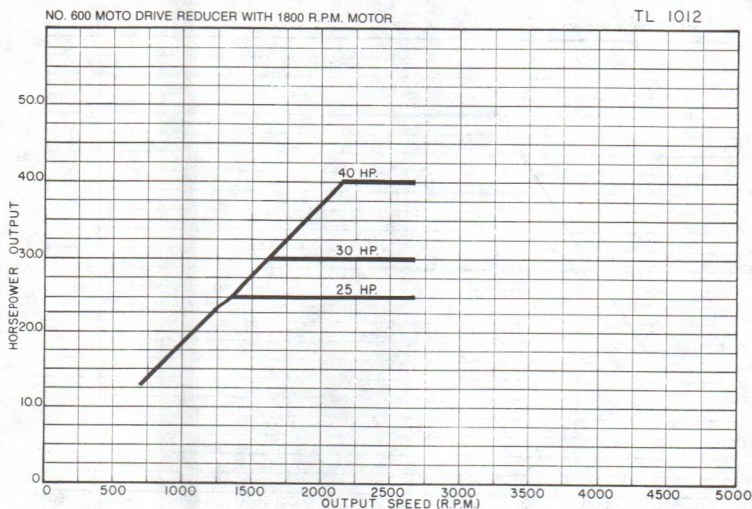
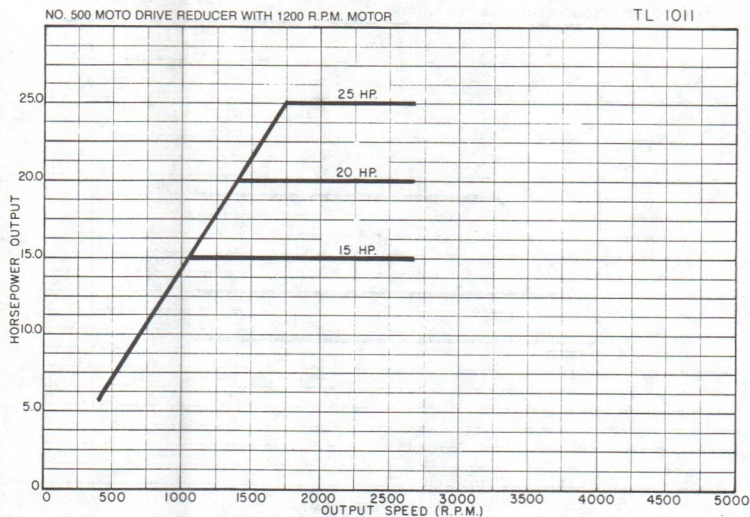
NO. 500 MOTO DRIVE REDUCER WITH 1800 R.P.M. MOTOR

TL 1010





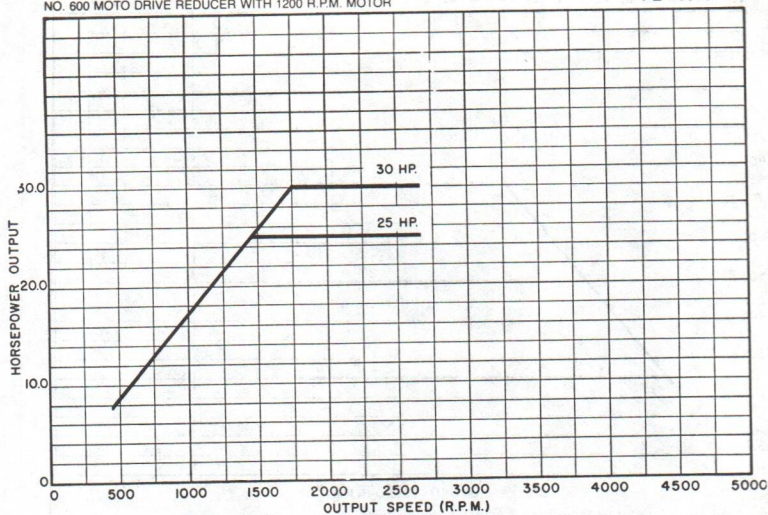
# Performance Rating Curves—MOTO DRIVE



# Performance Rating Curves—MOTO DRIVE

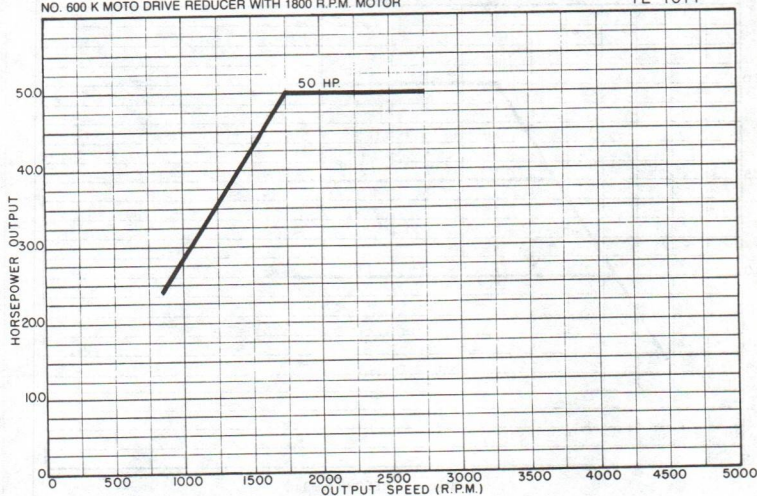
NO. 600 MOTO DRIVE REDUCER WITH 1200 R.P.M. MOTOR

TL 1013



NO. 600 K MOTO DRIVE REDUCER WITH 1800 R.P.M. MOTOR

TL 1014

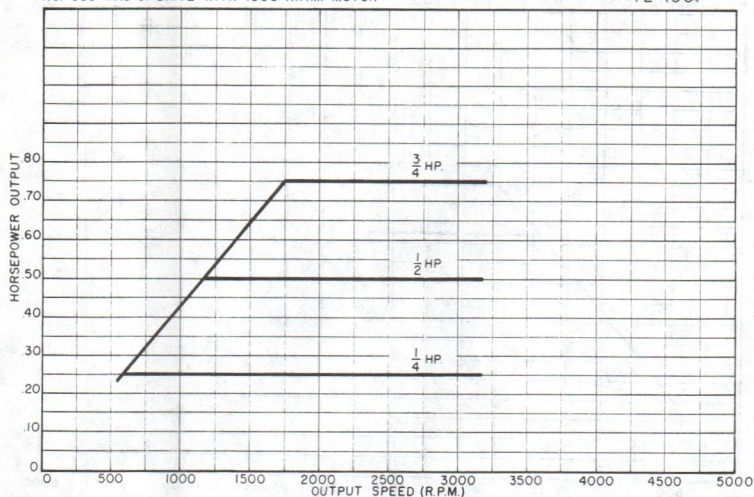




# Performance Rating Curves—MAS 51

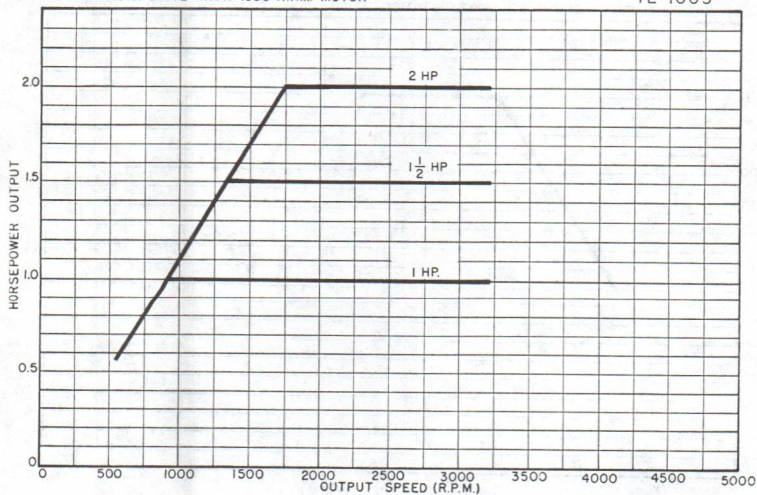
NO. 050 MAS 51 DRIVE WITH 1800 R.P.M. MOTOR

TL 1001

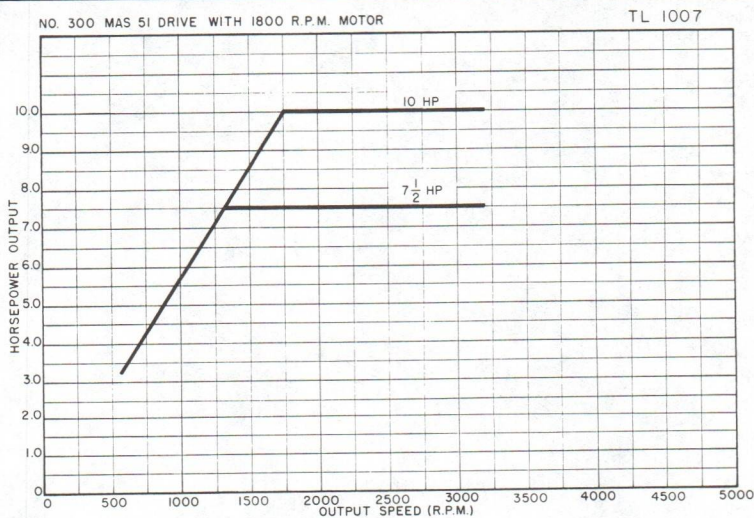
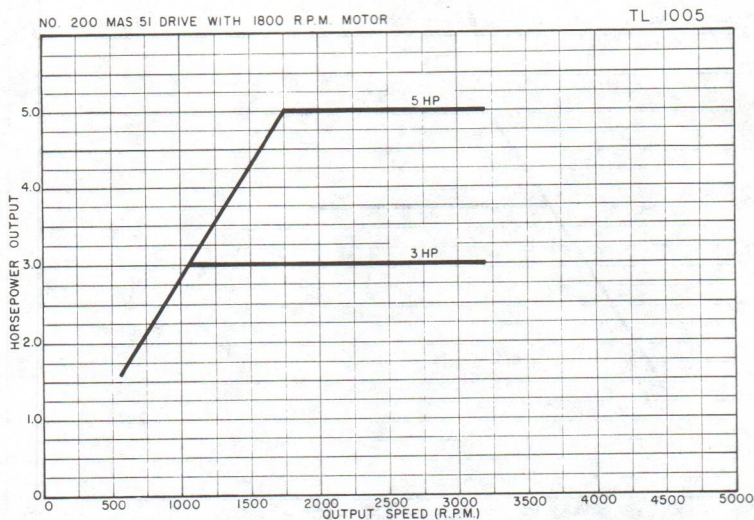


NO. 100 MAS 51 DRIVE WITH 1800 R.P.M. MOTOR

TL 1003

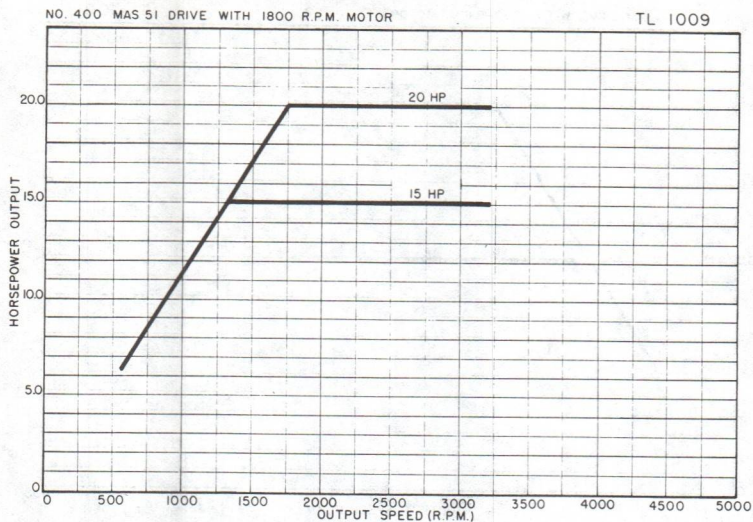


# Performance Rating Curves—MAS 51

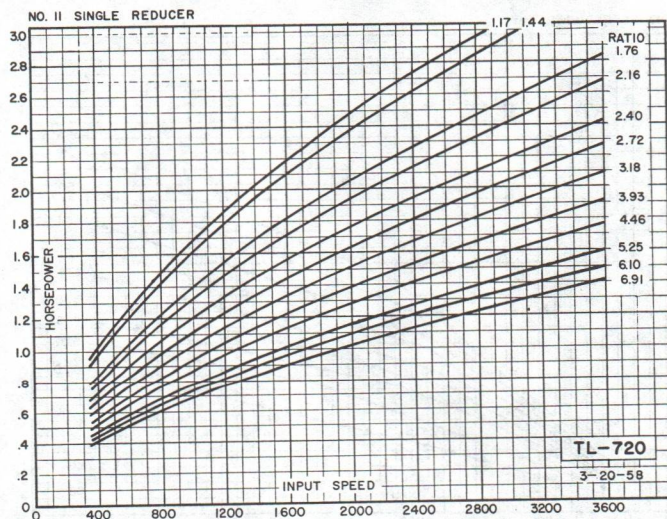
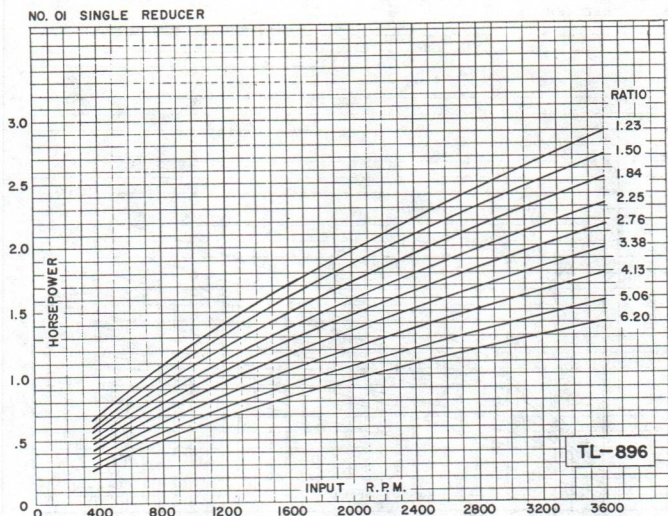




# Performance Rating Curves—MAS 51



# Performance Rating Curves—Reducers

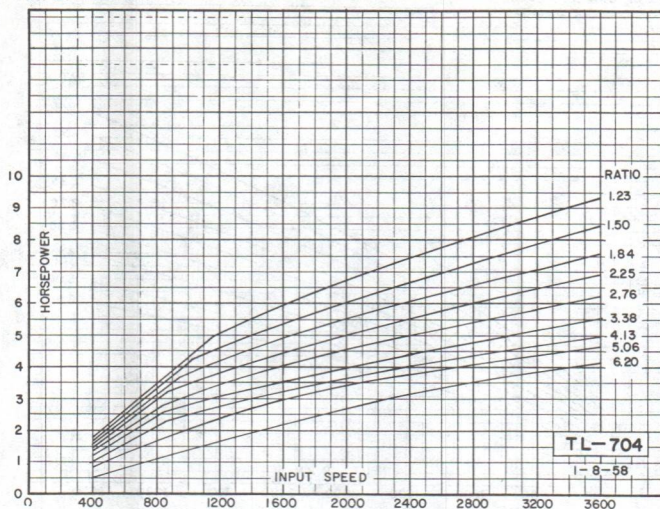


Reducer horsepower rating curves are based on AGMA Class 1 Service.

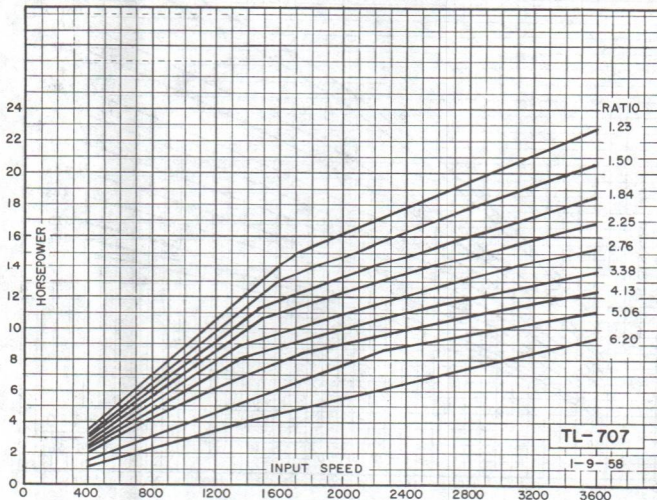


# Performance Rating Curves

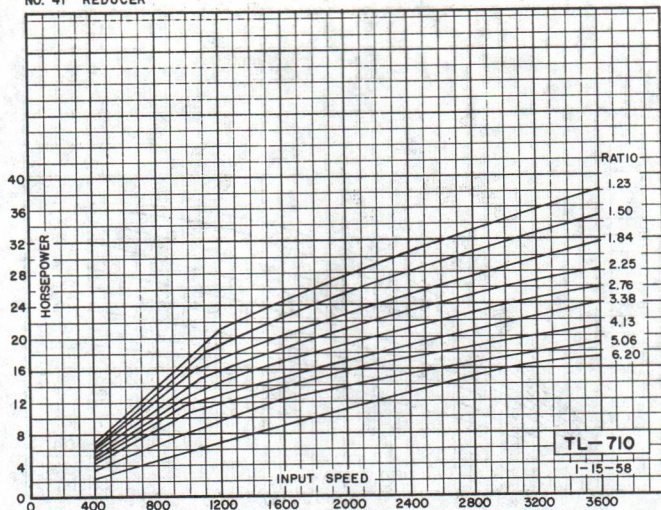
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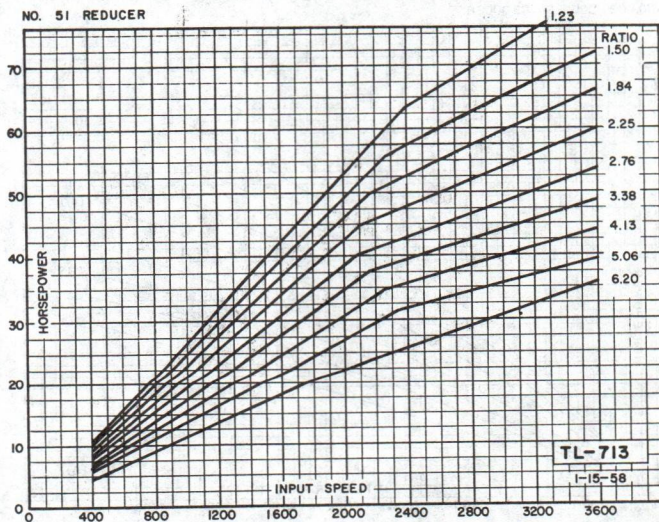
NO. 31 REDUCER



NO. 41 REDUCER

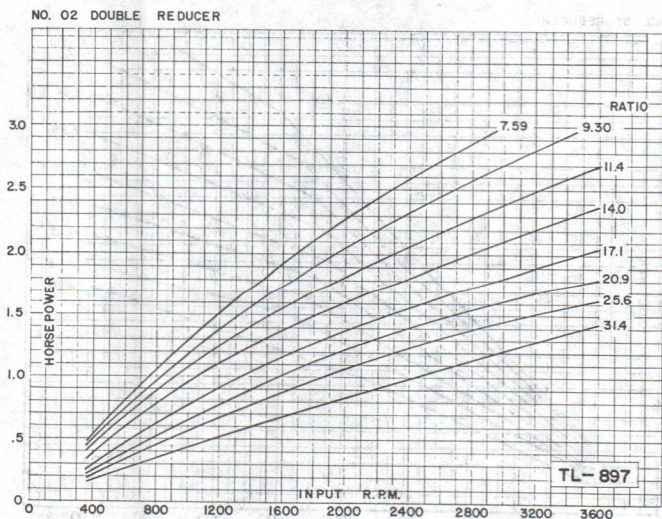
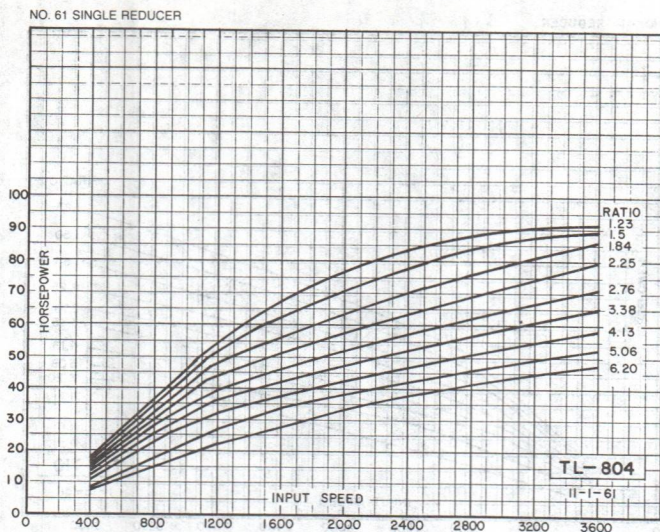


NO. 51 REDUCER

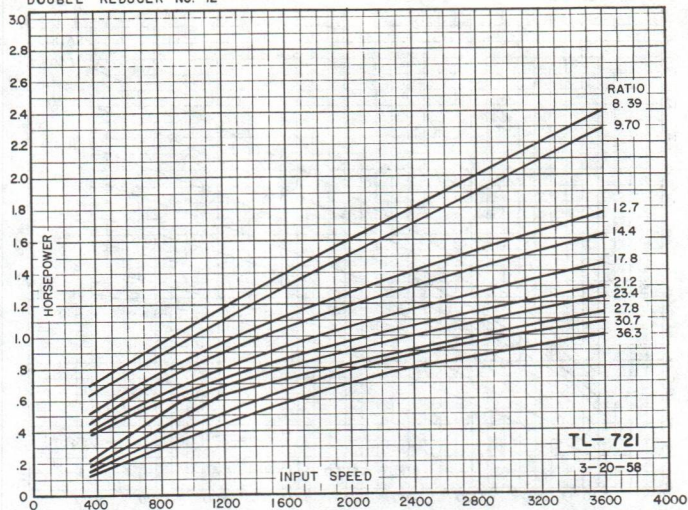




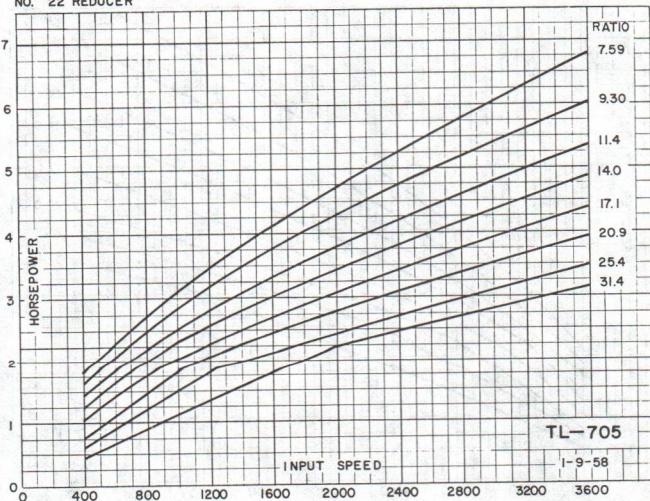
# Performance Rating Curves



DOUBLE REDUCER NO. 12

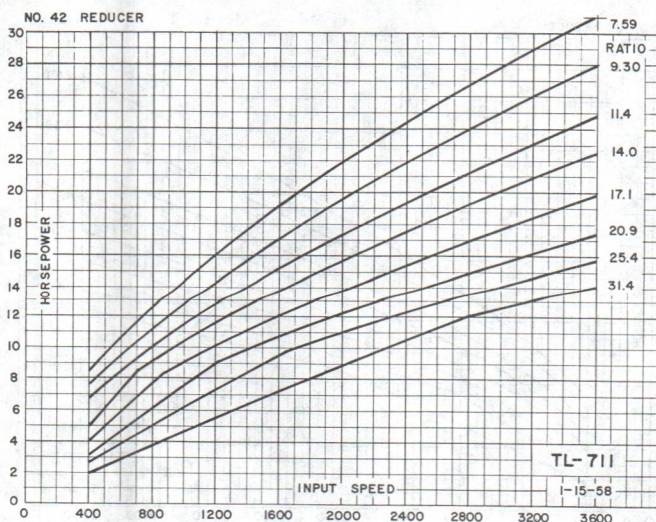
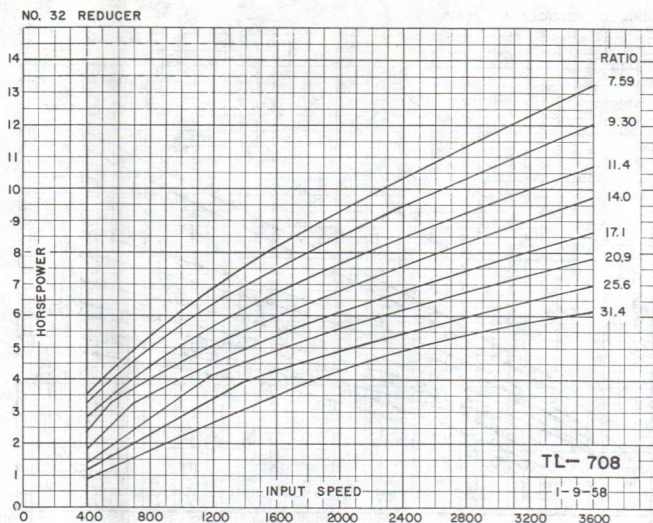


NO. 22 REDUCER

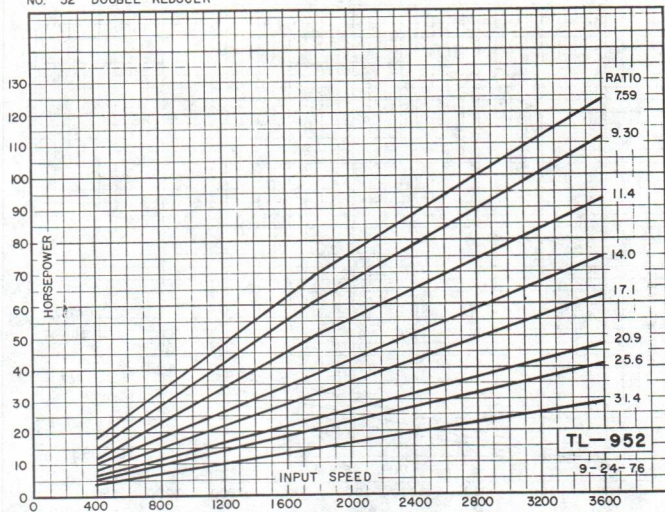




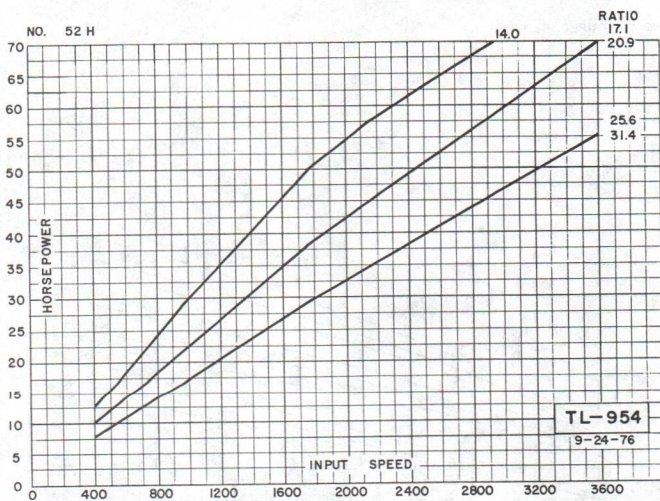
# Performance Rating Curves



NO. 52 DOUBLE REDUCER



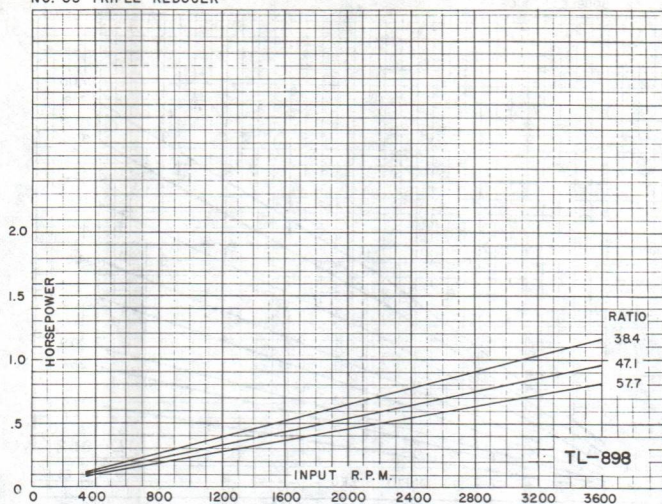
NO. 52 H



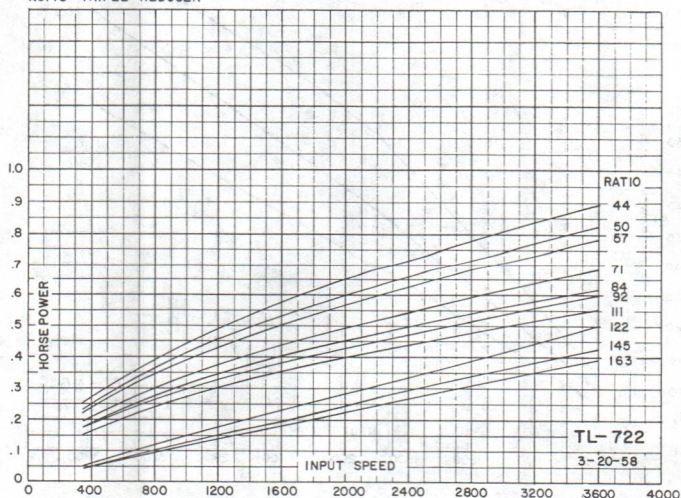


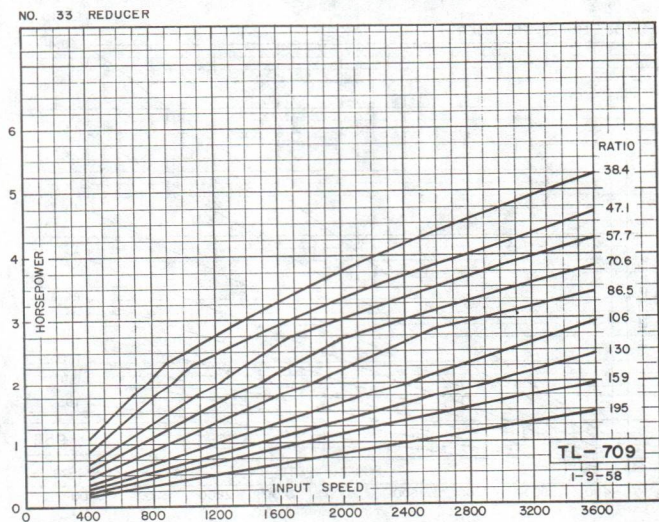
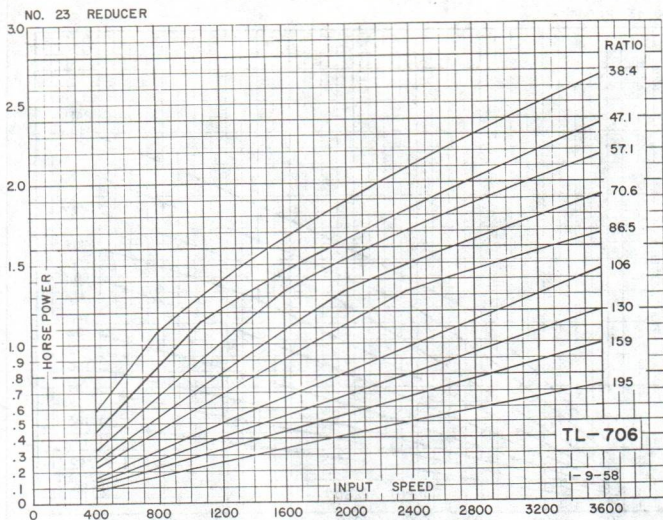
# Performance Rating Curves

NO. 03 TRIPLE REDUCER



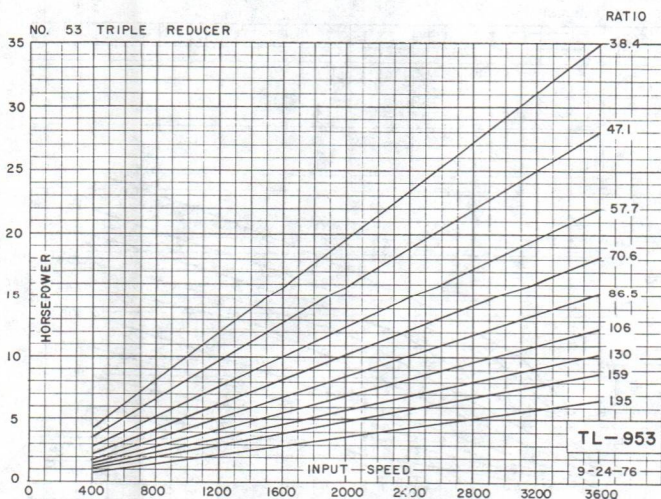
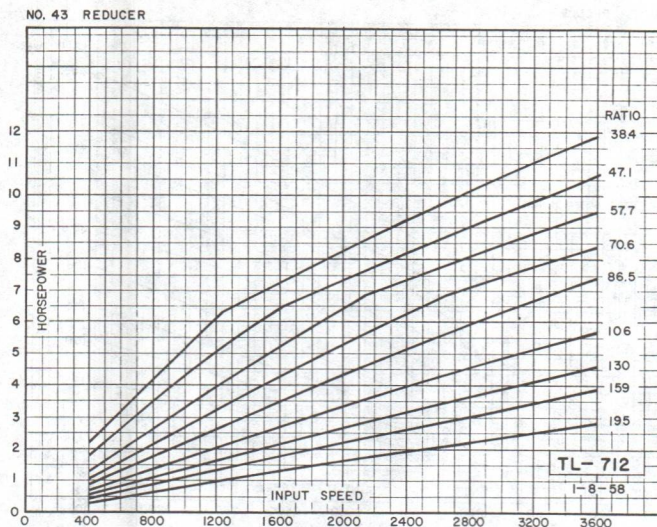
NO. 13 TRIPLE REDUCER

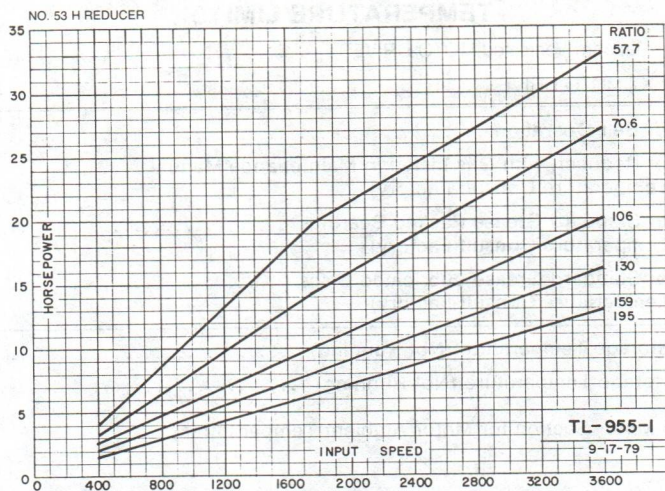






# Performance Rating Curves







## TEMPERATURE LIMITS

Max. Ambient for Standard Ventilated MOTO DRIVES .....	130° F
Max. Ambient for XT MOTO DRIVES .....	115° F
<hr/>	
Min. Ambient for Belt Operation .....	-20° F
Min. Ambient for Reducer, with Oils Listed in Maintenance Manual .....	0° F
(For Lower Temperature Consult Factory)	
Min. Ambient for Standard Grease Packed Bearings .....	-15° F
(For Lower Temperature Consult Factory)	
Min. Ambient for Standard Grease Lubricated Discs .....	-5° F
(For Lower Temperature Consult Factory)	
<hr/>	
Max. Ambient Storage Temperature (Not Running) .....	175° F
Min. Ambient Storage Temperature (Not Running) .....	-65° F

**NOTE:** Refer to Motor Section for Motor Ambient Temperatures.

## 050 — 600K MOTO DRIVE REDUCERS ERC SHIFTING TIMES (APPROX.)

Unit Size	ERC Type	Speed Variation With Time In Seconds				
		2:1	3:1	4:1	5:1	Maximum
050	Heavy/Auto Duty	17.0	21.5	23.0	25.0	28.0
100	Heavy/Auto Duty RAC	11.0 28.5	17.0 36.5	21.0 40.0	24.0 42.5	30.0 47.0
200	Heavy/Auto Duty RAC	11.0 26.5	17.0 34.5	22.5 38.0	27.5 40.5	40.0 45.0
300	Heavy/Auto Duty RAC	12.0 18.0	19.0 24.0	24.0 28.0	29.0 31.0	42.0 37.0
400	Heavy Duty Automatic Duty	16.0 5.0	26.0 7.5	33.0 8.5	38.0 9.5	46.0 10.5
500	Heavy Duty Automatic Duty	21.0 5.0	36.0 7.5	45.0 9.0	50.0 10.0	53.0 11.5
600	Heavy Duty Automatic Duty	22.0 5.5	37.0 8.0	42.0 9.5	48.0 10.0	54.0 11.0
600K	Heavy Duty Automatic Duty	23.0 6.5	38.0 9.5	— —	— —	— —

Automatic Duty Type Controls are equipped with ball screw shifting mechanism on sizes 400 through 600K.

## AIRTROL SHIFTING TIMES (Size 100 to 600)

Unit Size	Max. Speed Range	2:1 Speed Range
100, 200, & 300	5 seconds	3 seconds
400, 500, 600	8 seconds	4 seconds

## ERC MOTOR SPECIFICATIONS HEAVY DUTY — SIZES 050 THRU 600K MOTO DRIVE REDUCERS

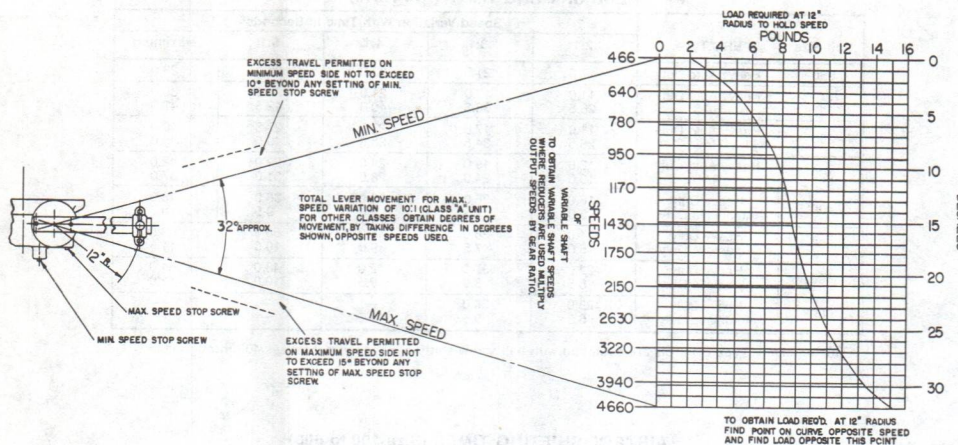
Size	Volts	Phase	H <sub>z</sub>	Amperes	Make	Type or Model	Enclosure	Duty	Pushbutton	Wiring Dia.	Remarks
050 — 100	115	1	60/50	.19	Molton	605036-03-G	TENV	30%	C-H 10250ED6317	1-62943	Built-In Brake and Thermal
200 — 300	115	1	60/50	.8	Molton	605038-20-A	TENV	30%	C-H 10250ED6317	1-62943	Built-in Brake and Thermal
400 — 600K	115	1	60/50	2.9/2.3	Ball Screw	MAR-50-S W/Ext. Br	TENV	25%	C-H 10250ED6317	1-65254	Ball Screw With Limit Switches & Potentiometer
400 — 600K	115	1	60	2.8	Masler	CM	TENV	25%	C-H 10250ED6317	D42000-07C	Friction Safety Clutch
100 — 200	115	1	60	.25	Molton	605036-03-J	*OPEN	100%	R.A.C. 702805-12-E	D72000-03C	Built-In Brake and Thermal
300	115	1	60	.17	Robbins & Meyers	605036-03-K	*OPEN	100%	R.A.C. 702805-12-F	D72000-03C	Built-in Brake and Thermal

\*TENV IN ENCLOSURE.



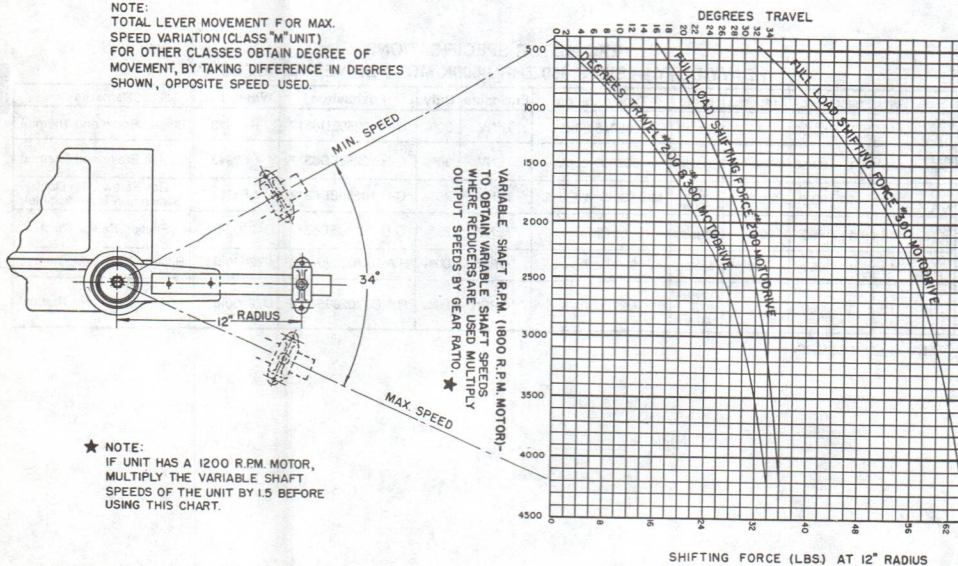
# Mechanical Automatic IBS Force

## MECHANICAL AUTOMATIC CONTROL WITH SAFETY BREAKOVER FOR REEVES No. 100 MOTO DRIVE REDUCERS



## MECHANICAL AUTOMATIC CONTROL WITH SAFETY BREAKOVER FOR REEVES No. 200 & 300 MOTO DRIVE REDUCERS

NOTE:  
TOTAL LEVER MOVEMENT FOR MAX. SPEED VARIATION (CLASS "M" UNIT) FOR OTHER CLASSES OBTAIN DEGREE OF MOVEMENT, BY TAKING DIFFERENCE IN DEGREES SHOWN, OPPOSITE SPEED USED.



★ NOTE:  
IF UNIT HAS A 1200 R.P.M. MOTOR, MULTIPLY THE VARIABLE SHAFT SPEEDS OF THE UNIT BY 1.5 BEFORE USING THIS CHART.

# Overhung Load Capacities

- A. **Mounting** — Sprockets, sheaves, gears and pulleys on output shaft.

In general, the closer a sprocket, sheave, gear or pulley is mounted to the supporting bearings of an output shaft, the less will be the load on the bearing and the less the stress on the shaft.

The overhung load capacities given below are calculated on the basis of the load being located one shaft diameter from the bearing housing. Make sure that the overhung load capacity of the output shaft is not exceeded.

- B. **Determining Minimum Pitch Diameters for Connecting Drives**

When the type of drive load connection is a chain and sprocket, it is necessary to be sure the sprocket pitch diameter is adequate. Sprockets of small pitch diameter produce greater overhung loads than do larger sprockets. The same applied to other types of drive load connections, i.e., sheaves, gears or pulleys.

The following formula may be used to calculate the minimum allowable pitch diameter (min. P.D.) of the load connecting device.

$$\text{Min. P.D.} = \frac{\text{Maximum output HP} \times F \times 126,000}{\text{Allowable overhung load} \times \text{Max. output rpm}}$$

Where:

F: = Factor for type of load connecting device

Such as:

F = 1 for chain and sprocket with one side tight,

F = 1.25 for chain and sprocket with both sides tight,

F = 1.25 for gear,

F = 1.5 for V-belt and sheave with drive and driven sheaves of equal diameter,

F = 1.5 to 2 for V-belt and sheave with drive and driven sheaves of unequal diameter,

F = 2.5 for flat pulley and flat belt.

Use allowable overhung load capacity for appropriate Moto Drive and reducer from tables below.

**Non-Gear — Sizes #050 through #600K MOTO DRIVE Reducers**

Max. Output Speed rpm	MOTODRIVE SIZE							
	050	100	200	300	400	500	600	600K
	1/4 – 1/2 HP	3/4 – 1 1/2 HP	2 – 3 HP	5 – 7 1/2 HP	10 – 15 HP	20 – 25 HP	30 – 40 HP	50 HP
Any cataloged maximum speed	73	189	288	343	344	1288	1724	1578



# Overhung Load Capacities

• OVERHUNG LOADS FOR RIGHT ANGLE WORM REDUCERS — W12, W16, W21, W28, W40<sup>(1)</sup>

Output Speed rpm (Max.)	W12		W16				W21				W28				W40	
	1/4 HP	1/2 HP	1/4 HP	1/2 HP	3/4 HP	1 HP	1 1/2 HP	1 HP	1 1/2 HP	2 HP	3 HP	2 HP	3 HP	4 HP	7 1/2 HP	10 HP
520	540	540	—	—	630	—	—	—	—	—	930	890	—	—	—	—
420	540	530	—	—	690	660	640	—	—	—	—	—	—	—	—	—
350	540	520	—	—	700	680	650	—	—	—	960	920	—	—	1530	1460
280	540	510	—	—	730	710	680	—	—	—	1000	950	—	—	1590	1490
230	540	490	—	—	770	760	720	—	—	—	1090	1050	1000	—	1780	1680
190	530	460	—	—	850	820	790	740	—	—	1150	1100	1020	—	1500	1380
155	520	460	—	—	950	880	850	790	—	—	1250	1220	1170	1080	1570	—
125	510	440	—	—	990	910	870	—	1010	—	1280	1250	1210	—	1630	—
100	490	400	—	—	990	980	950	—	—	—	1320	1320	1300	—	1880	1800
84	480	360	860	980	980	970	—	—	—	—	1320	1310	1300	—	1930	—
68	460	—	860	980	980	960	—	—	—	—	1320	1310	1300	—	2040	—
56	450	—	860	980	980	960	—	—	—	—	1310	1290	1280	—	—	—
45	430	—	860	970	960	—	—	—	—	—	1310	1290	1280	—	—	—
37	400	—	990	960	—	—	—	—	—	—	1290	—	—	—	—	—
30	380	—	980	950	—	—	—	—	—	—	—	—	—	—	—	—
25	—	—	980	—	—	—	—	—	—	—	—	—	—	—	—	—
20	—	—	850	—	—	—	—	—	—	—	—	—	—	—	—	—

• OVERHUNG LOADS FOR RIGHT ANGLE COMBINATION REDUCERS — C12, C16, C21, C28, C40<sup>(1)</sup>

Output Speed rpm (Max.)	C12			C16			C21							C28							C40							
	¼ HP	½ HP	¾ HP	¼ HP	½ HP	1 HP	1½ HP	¼ HP	½ HP	¾ HP	1 HP	1½ HP	2 HP	3 HP	5 HP	¼ HP	½ HP	1 HP	1½ HP	2 HP	3 HP	5 HP	7½ HP	2 HP	3 HP	5 HP	7½ HP	10 HP
420	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1400	—	—	—	—	—	—	—	2000	—	—	—	—	—
350	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1500	—	—	—	—	—	—	—	3300	—	—	—	—	—
280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1650	—	—	—	—	—	—	—	3600	—	—	—	—	—
230	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
190	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1900	1800	—	—	—	—	—	—	3900	—	—	—	—	—
155	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1950	1900	—	—	—	—	—	—	4200	—	—	—	—	—
166	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2100	2050	2040	—	—	—	—	—	4500	—	—	—	—	6000
125	—	—	—	—	—	—	1010	1420	—	—	—	—	—	—	—	—	2180	—	—	—	—	3800	—	—	—	—	—	—
100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2200	2200	—	—	—	4080	4800	—	—	—	—	8400
84	—	—	390	—	—	—	1230	1500	1540	—	—	—	—	—	—	—	—	—	—	—	—	5200	5100	—	—	—	—	6700
68	1180	1170	—	—	—	1680	1680	1640	—	—	—	—	—	—	—	—	—	—	—	—	—	5400	5300	—	—	—	—	7100
56	1180	1170	—	—	—	1800	1780	1750	—	—	—	—	—	—	—	—	—	—	—	—	—	5600	5600	—	—	—	—	—
45	1180	1160	—	—	1800	1790	1760	1720	—	—	—	—	—	—	—	—	—	—	—	—	—	5900	5900	5800	—	—	—	7500
37	1180	1150	—	—	1800	1780	1740	1680	—	—	—	—	—	—	—	—	—	—	—	—	—	5900	5900	5800	—	—	—	7900
30	1170	1140	—	—	1790	1760	1720	—	—	—	—	2800	2700	2900	2880	2840	—	—	—	—	—	5600	5900	5800	5700	—	—	8700
25	1170	1130	—	—	1780	1740	1680	—	—	—	—	2950	2900	2960	2800	—	—	—	—	—	—	5900	5900	5800	—	—	8800	8600
20	1160	1140	—	—	1780	1720	1600	—	—	—	—	—	2900	2880	2800	—	—	—	—	—	—	5900	5900	5800	5700	—	—	8700
16.5	1150	—	1800	1760	1680	—	—	—	—	—	—	—	2820	2640	—	—	—	—	—	—	—	5900	5900	5800	5600	—	—	8600
13.5	1140	—	1800	1740	1600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5900	5900	5800	5700	—	—	8700
11.0	1140	—	1790	1680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5900	5900	5800	5600	—	—	8800
9.0	1130	—	1780	1660	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5900	5900	5800	5600	—	—	8900
7.5	1080	—	1770	1580	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5900	5900	5800	5600	—	—	8800
6.0	—	—	1750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8900
5.0	—	—	1720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8700
4.0	—	—	1680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8400
3.3	—	—	1680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8100
2.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

(1) In pounds pull at one shaft diameter from gear box bearing housing.

## HORSEPOWER RATINGS

### Parallel Shaft Units

REEVES VARI-SPEED MOTO DRIVE horsepower ratings for parallel shaft units given in the *Ratings and Prices Section* are defined as the capability of the listed unit to deliver its rating at the *OUTPUT SHAFT* at the listed maximum output speed. When drive motor specifications include 50 Hz., explosion-proof, multi-speed, BISSC or any combination of these features, the horsepower rating in the input of the Moto Drive belt case.

The MOTO DRIVE as listed is, therefore, considered to be a constant torque device over its entire speed range with its horsepower capability at the output shaft varying directly with the output speed.

### Right Angle Shaft Units

REEVES VARI-SPEED MOTO DRIVE horsepower ratings for right angle shaft units as listed are defined as capable of delivering its catalog rating *into* the right angle reducer at maximum speed. For the *output ratings* of Moto Drives with right angle reducers, refer to the table Output Torque and Horsepower Capacities for Moto Drives with Right Angle Reducers on M1-205 and M1-206.

### Determining Torque and Horsepower Values

A REEVES VARI-SPEED MOTO DRIVE is capable of delivering constant torque over its entire speed range, as determined by the following formula:

$$\text{Torque Capacity (inch-lbs.)} = \frac{\text{Output Horsepower} \times 63,025}{\text{Maximum Output rpm}}$$

When the torque requirement is constant over the speed range, the horsepower required can be calculated as follows:

$$\text{Horsepower} = \frac{\text{Torque (inch-lbs.)} \times \text{Maximum rpm}}{63,025}$$

$$\text{or, Horsepower} = \frac{\text{Torque (ft-lbs.)} \times \text{Maximum rpm}}{5,252}$$

When the requirement is specified in terms of pull, or tension, and speed of travel, such as when selecting a MOTO DRIVE for a conveyor, or the continuous processing of paper, cloth, sheet metal or web material, the horsepower would be determined as follows:

$$\text{Horsepower} = \frac{\text{Pull (pounds)} \times \text{Maximum Speed of Travel (F.P.M.)}}{33,000}$$

### Constant Horsepower

Whenever an application requires constant horsepower over a portion of the speed range, or whenever the duty requirements exceed the basis for catalog ratings, your RELIANCE Sales Office should be consulted for recommendations.

**NOTE:** For additional information on rating curves request paper "MOTO DRIVE Performing Rating Curves."



# Overhung Load Capacities

PARALLEL REDUCERS  
SINGLE REDUCERS—SIZES 01, 11, 21, 31, 41, 51, 61

(IN POUNDS PULL ONE SHAFT  
DIA. FROM BRAKE HOUSING)

Maximum Output Speed rpm	01		11		21		31		41		51		61							
	1/4 HP	1/2 HP	3/4 HP	1 HP	1-1/2 HP	1-1/2 HP	2 HP	3 HP	3 HP	5 HP	7-1/2 HP	7-1/2 HP	10 HP	15 HP	15 HP	20 HP	25 HP	30 HP	40 HP	50 HP
3940	80	75	125	130	125	255	250	480	465	670	660	1030	1015	1220	1295	1400	1475	1440	1400	1360
3220	85	80	130	130	125	255	250	480	465	670	660	1030	1015	1220	1295	1400	1475	1440	1400	1360
2630	90	95	140	135	130	270	260	510	500	715	705	1245	1230	1475	1440	1400	1360	1320	1280	1240
2150	95	95	150	145	140	290	280	545	530	760	743	1245	1230	1475	1440	1400	1360	1320	1280	1240
1750	100	100	160	155	145	305	295	575	560	805	790	1325	1300	1575	1520	1490	1450	1400	1360	1320
1430	110	105	165	160	155	325	315	575	560	855	833	1410	1370	1770	1705	1650	1575	1500	1425	1350
1170	115	110	180	175	165	345	335	650	625	910	883	1490	1440	1880	1795	1750	1650	1575	1500	1425
950	125	120	190	185	170	375	370	690	660	965	930	1580	1530	1980	1890	1815	1710	1610	1510	1410
780	130	125	200	195	180	400	390	730	690	1050	1020	1670	1610	2090	1980	1900	1790	1680	1570	1460
640	140	130	210	205	190	425	415	770	730	1110	1075	1760	1690	2205	2075	1950	1840	1730	1620	1510
520	150	140	225	215	205	450	435	815	765	1175	1130	1860	1760	2315	2165	2000	1890	1780	1670	1560
420	160	145	235	225	215	475	460	860	800	1240	1190	1955	1830	2400	2205	2050	1940	1830	1720	1610
350	170	155	245	235	225	500	485	895	830	1300	1240	2045	1915	2490	2295	2140	2030	1920	1810	1700
280	180	160	260	245	235	530	510	1005	930	1370	1295	2140	2005	2605	2400	2240	2125	2010	1895	1780
230	190	170	270	255	245	560	540	1065	990	1440	1360	2240	2105	2715	2500	2340	2225	2110	1995	1880

DOUBLE REDUCERS—SIZES 02, 12, 22, 32, 42, 52

Max. Output Speed rpm	02		12		22		32		42		52 *					
	1/4 HP	1/2 HP	3/4 HP	1 HP	1-1/2 HP	2 HP	3 HP	5 HP	7-1/2 HP	10 HP	15 HP	20 HP	25 HP	30 HP	40 HP	50 HP
640	385	380	410	405	320	315	835	830	795	1075	1050	2255	2180	4100	4330	4500
520	440	435	440	435	340	335	895	885	830	1140	1100	2385	2300	4430	4660	4830
420	470	460	460	455	360	355	945	940	885	1210	1170	2405	2390	4500	4735	4900
280	500	490	485	475	360	350	1015	985	900	1290	1250	2730	2680	4950	5180	5315
230	535	520	505	490	380	370	1080	1025	915	1370	1300	2820	2815	5000	5235	5370
190	570	550	540	530	415	405	1135	1075	945	1500	1420	2950	2860	5180	5415	5550
155	605	585	575	565	440	430	1200	1110	955	1590	1490	3075	2985	5275	5510	5645
125	650	625	615	605	465	455	1250	1155	970	1685	1560	3215	3065	5355	5590	5725
100	695	665	655	645	490	480	1295	1180	1000	1790	1645	3360	3175	5440	5675	5810
84	730	695	685	675	515	505	1340	1205	1015	1875	1715	3480	3265	5520	5755	5890
68	780	740	730	720	540	530	1385	1235	1040	1960	1785	3600	3375	5600	5835	5970
56	825	775	765	755	565	555	1430	1295	1065	2045	1865	3720	3495	5680	5915	6050
45	880	830	815	805	590	580	1475	1340	1090	2130	1945	3840	3615	5760	5995	6130
37	920	870	855	845	615	605	1520	1395	1115	2215	2025	3960	3735	5840	6075	6210
30	970	920	905	895	640	630	1565	1440	1140	2300	2115	4080	3855	5920	6155	6290
25	1010	960	945	935	665	655	1610	1490	1165	2385	2195	4200	3965	6000	6235	6370
20	1060	1010	995	985	690	680	1655	1535	1190	2470	2285	4320	4085	6080	6315	6450
16.5	1110	1060	1045	1035	715	705	1700	1585	1215	2555	2365	4440	4205	6160	6395	6530
13.5	1160	1110	1095	1085	740	730	1745	1635	1240	2640	2445	4560	4325	6240	6475	6610

TRIPLE REDUCERS—SIZES 03, 13, 23, 33

Maximum Output Speed rpm	03		13			23			33			
	1/4 HP	1/2 HP	1/4 HP	1/2 HP	3/4 HP	1 HP	1-1/2 HP	2 HP	1 HP	1-1/2 HP	2 HP	3 HP
125	645	620	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
100	690	660	.....	.....	505	1390	1265	1140	.....	.....	.....	1790
84	730	690	.....	.....	530	1445	1290	1140	.....	.....	.....	1880
68	775	725	620	.....	585	1550	1515	1310	1125	.....	.....	1950
56	880	760	655	615	580	1565	1565	1350	.....	.....	.....	2080
45	875	745	650	600	.....	1610	1340	.....	.....	.....	.....	2090
37	920	685	740	680	.....	1610	1230	.....	.....	2370	2320	2140
30	970	580	785	705	.....	1685	.....	.....	.....	2485	2415	2050
25	1010	.....	825	.....	.....	1680	.....	.....	.....	2560	2585	.....
20	.....	.....	830	.....	.....	.....	.....	.....	2930	3090	2690	.....
16.5	.....	.....	915	.....	.....	.....	.....	.....	3260	3100	.....	.....
13.5	.....	.....	960	.....	.....	.....	.....	.....	3315	.....	.....	.....

TRIPLE REDUCERS—SIZES 43, 53

Maximum Output Speed rpm	43							53							
	1 HP	1-1/2 HP	2 HP	3 HP	5 HP	7-1/2 HP	10 HP	3 HP	5 HP	7-1/2 HP	10 HP	15 HP	20 HP	25 HP	30 HP
100					3940	3810	3675						6920		
84					4125	3960	3795						6920	6920	
68					4335	3930					6920	6920	6920	6920	
56					4445	4040					6920	6920	6920	6920	6920
45					4445					6920	6920	6920	6920	6920	
37					4445					6920	6920	6920	6920	6920	
30										6920	6920	6920	6920		
25		4445		4445	4445					6920	6920	6920			
20		4445		4445	4445					6920	6920	6920			
16.5	4445	4445		4445						6920	6920	6920			
13.5		4445		4445						6920	6920	6920			
11.0		4445		4445						6920	6920	6920			
9.0		4445								6920					
7.5		4445								6920					
6.0															

## STANDARD REEVES MOTO DRIVE REDUCER WEIGHTS

Unit Size No.	F L O W	Vertical, 45°		Horizontal R.H. & L.H.	
		Net	Shipping	Net	Shipping
050	C	55	70	55	70
No Reducer	Z	55	70	55	70
051	C	61	76	61	76
Single Reducer	Z	63	76	63	78
052	C	71	86	71	86
Double Reducer	Z	73	88	73	88
053	C	78	93	78	93
Triple Reducer	Z	80	95	80	95
100	C	111	131	121	141
No Reducer	Z	111	141	121	151
111	C	121	141	131	151
Single Reducer	Z	121	151	131	161
112	C	131	151	141	161
Double Reducer	Z	131	161	141	171
113	C	136	156	146	166
Triple Reducer	Z	136	166	146	176
121	C	132	152	136	156
Single Reducer	Z	138	158	142	162
122	C	150	170	160	180
Double Reducer	Z	156	186	166	196
123	C	153	173	163	183
Triple Reducer	Z	159	189	169	199
133	C	226	246	236	256
Triple Reducer	Z	228	258	238	268
200	C	230	270	230	285
No Reducer	Z	230	285	230	290
221	C	251	291	251	295
Single Reducer	Z	257	305	257	332
222	C	269	309	269	312
Double Reducer	Z	275	322	275	352
223	C	272	312	272	315
Triple Reducer	Z	278	325	278	355
231	C	265	305	265	320
Single Reducer	Z	287	342	287	347
232	C	323	363	323	378
Double Reducer	Z	345	400	345	405
233	C	327	367	327	382
Triple Reducer	Z	349	404	349	409
243	C	509	570	509	585
Triple Reducer	Z	512	590	512	590
300	C	361	431	361	431
No Reducer	Z	350	415	350	416
331	C	396	466	496	466
Single Reducer	Z	407	497	407	521
332	C	454	524	444	524
Double Reducer	Z	465	545	465	580
333	C	458	528	458	528
Triple Reducer	Z	469	549	469	584
341	C	416	486	416	486
Single Reducer	Z	415	480	415	481
342	C	546	616	546	616
Double Reducer	Z	545	614	545	615

Unit Size No.	F L O W	Vertical, 45°		Horizontal R.H. & L.H.	
		Net	Shipping	Net	Shipping
343	C	551	621	551	621
Triple Reducer	Z	550	615	550	616
353	C	836	906	836	906
Triple Reducer	Z	830	895	830	896
(1) 400	C	630	735	630	730
No Reducer	Z	630	735	630	760
441	C	685	795	685	815
Single Reducer	Z	695	795	695	835
442	C	815	920	815	940
Double Reducer	Z	825	955	825	960
443	C	820	925	820	950
Triple Reducer	Z	830	960	830	970
451	C	770	875	770	870
Single Reducer	Z	847	952	847	977
452	C	1095	1215	1095	1240
Double Reducer	Z	1100	1240	1100	1245
453	C	1105	1225	1105	1250
Triple Reducer	Z	1110	1250	1110	1255
500	C	1243	1410	1243	1410
No Reducer	Z	1243	1410	1243	1420
551	C	1383	1555	1383	1543
Single Reducer	Z	1460	1635	1383	1565
552	C	1545	1700	1545	1700
Double Reducer	Z	1570	1735	1570	1745
553	C	1550	1710	1550	1710
Triple Reducer	Z	1580	1745	1580	1750
561	C	1423	1590	1423	1590
Single Reducer	Z	1423	1590	1423	1600
(2) 600	C	1486	1766	1486	1716
No Reducer	Z	1486	1776	1486	1751
661	C	1666	1946	1666	1876
Single Reducer	Z	1686	1986	1686	1961
652	C	1793	2073	1793	2073
Double Reducer	Z	1813	2088	1813	2088
600K	C	1610	1900	1610	1840
No Reducer	Z	1610	1900	1610	1875
661K	C	1790	2070	1790	2001
Single Reducer	Z	1810	2110	1810	2085
652K	C	1917	2197	1917	2127
Double Reducer	Z	1937	2212	1937	2212

- (1) For all 400 MOTO DRIVE Reducers add 6 lbs. when unit is furnished with 254 or 256T frame motor.  
 (2) For all 600 MOTO DRIVE Reducers add 15 lbs. when unit is furnished with 284 or 286T frame motor.



# Shipping Weights

## TRUNNION REEVES MOTO DRIVE REDUCER WEIGHTS

Unit Size No.	F L O W	Vertical, 45°		Horizontal R.H. & L.H.	
		Net	Shipping	Net	Shipping
050	C	50	65	50	65
No Reducer	Z	50	65	50	65
051	C	100	115	110	130
Single Reducer	Z	100	115	110	130
100	C	106	121	116	136
No Reducer	Z	106	121	116	136
111	C	116	121	126	146
Single Reducer	Z	116	121	126	146
121	C	133	148	143	163
Single Reducer	Z	133	148	143	163
200	C	235	275	235	290
No Reducer	Z	235	275	235	290
221	C	262	300	262	320
Single Reducer	Z	262	305	262	310
231	C	270	310	270	325
Single Reducer	Z	279	319	279	334
300	C	350	415	350	416
No Reducer	Z	350	415	350	416
331	C	385	450	385	431
Single Reducer	Z	396	466	396	466
341	C	435	500	435	501
Single Reducer	Z	415	480	415	481
(1) 400	C	620	725	620	745
No Reducer	Z	620	725	620	745
441	C	705	820	705	835
Single Reducer	Z	685	810	685	815
451	C	815	920	815	940
Single Reducer	Z	780	885	780	905
500	C	1220	1370	1220	1290
No Reducer	Z	1220	1370	1220	1390
551	C	1415	1565	1415	1560
Single Reducer	Z	1380	1550	1380	1540
561	C	1420	1570	1420	1490
Single Reducer	Z	1440	1590	1440	1610
(2) 600	C	1441	1626	1441	1661
No Reducer	Z	1441	1656	1441	1661
661	C	1641	1911	1641	1861
Single Reducer	Z	1661	1881	1661	1861
600K	C	1565	1810	1565	1835
No Reducer	Z	1565	1830	1565	1815
661K	C	1765	2085	1765	2035
Single Reducer	Z	1785	2055	1785	2035

## RIGHT ANGLE (3) REEVES MOTO DRIVE REDUCER WEIGHTS

Unit Size No.	F L O W	All Assemblies	
		Net	Shipping
05W12	C	83	98
	Z		
05C12	C	69	84
	Z		
05W16	C	85	100
	Z		
1W16	C	130	151
	Z		
1C16	C	153	176
	Z		
1W21	C	159	181
	Z		
1C21	C	207	226
	Z		
1C28	C	307	327
	Z		
2W21	C	278	320
	Z		
2C21	C	326	370
	Z		
2W28	C	320	360
	Z		
2C28	C	426	470
	Z		
3C21	C	455	521
	Z		
3W28	C	446	516
	Z		
3C28	C	552	581
	Z		
3W40	C	580	632
	Z		
3C40	C	790	838
	Z		
4W40	C	825	872
	Z		
4C40	C	1050	1112
	Z		

- (1) For all 400 MOTO DRIVE Reducers add 6 lbs. when unit is furnished with 254 or 256T frame motor.  
 (2) For all 600 MOTO DRIVE Reducers add 15 lbs. when unit is furnished with 284 or 286T frame motor.  
 (3) Right angle gear unit (all assemblies).

## WIRING DIAGRAMS

### ELECTRIC REMOTE CONTROLS

#### MOTO DRIVE REDUCER

Size 050 thru 300, 115V, 1 PH, Heavy Duty Cam Type:

Standard Pushbutton.....1-62943

Standard Pushbutton with

Transformer.....1-62945

Return to Low Speed

before Stop.....D42000-07-P

Dial Control.....D62000-01-F

Current Input Control.....D62000-01-H

Current Input Control with Separate

"Hand-Auto" Switch and

Pushbuttons.....D62000-01-J

Current Input Control with "Hand-Auto"

Switch and Pushbuttons in Amplifier

Enclosure Door.....D62000-01-M

Size 100 thru 300

Control System.....D72000-03-W

Size 400 thru 600K, 115V, 1 PH, Heavy Duty, with

Master Gearmotor:

Standard Pushbutton.....D42000-07-C

Standard Pushbutton with

Transformer.....D42000-07-D

Standard Pushbutton with Brake

on Gearmotor.....D42000-07-E

Standard Pushbutton with Rotary

Limit Switch.....D42000-07-F

Standard Pushbutton with 2-Speed

Drive Motor.....D42000-07-N

Return to Low Speed before Stop...3-61661-1

Size 400 thru 600K R.A.C. with

Heavy Duty Ball Screw.....D72000-03-X

Size 400 thru 600K, 115V, 1 PH, Heavy Duty, Ball Screw:

Standard Pushbutton.....1-65254

Standard Pushbutton with

Transformer.....1-65255

Return to Low Speed before Stop ....1-65275

Current Input Control.....2-65301

Current Input Control with Separate

"Hand-Auto" Switch and

Pushbuttons.....D62000-01-A

Current Input Control with Separate

"Hand-Auto" Switch and Pushbuttons,

Return to Low Speed

before Stop.....D72000-03-A

### MISCELLANEOUS DIAGRAMS

#### ■ AIRTROL Supply Air

Solenoid Valves.....D42000-25-C

Stearns Brake Coil Connections

230/460 Volts .....2-56876

115 Volt AIRtrol Solenoid Valve and

115 Volt Brake, 2-Speed

Drive Motor.....D42000-25-B

Frequency to Current Transmitter,

Magnetic Pickup Frequency Input,

4 to 20 MA D-C Output .....D42000-10-L

AIRtrol Return to Low Speed

before Stop.....D42000-10-D

Reeves Model DM4000

Tachometer.....D62000-02-F

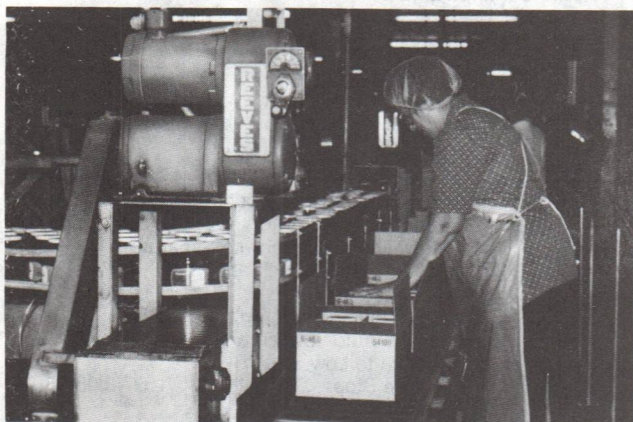
AIRtrol E/P Transducer .....D42000-10-B

AIRtrol E/P Transducer with Manual-Auto

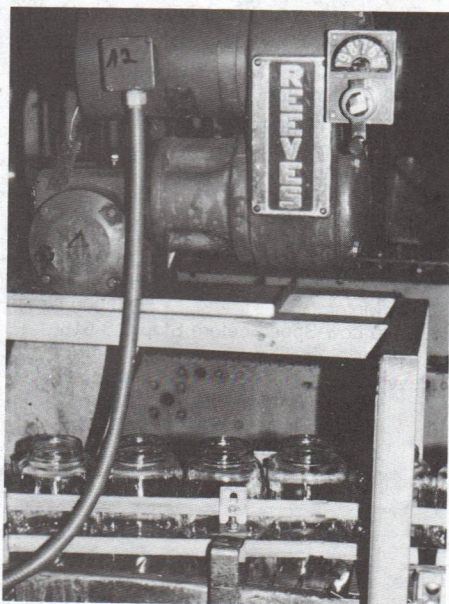
Switching.....D42000-10-E



# REEVES MOTO DRIVE REDUCER



REEVES MOTO DRIVE Reducer applied in Food Processing Plant.



REEVES MOTO DRIVE Reducer used in Bottling Plant.

NOTE: Guards have been removed for photographic purposes.

# DISCTRAC™

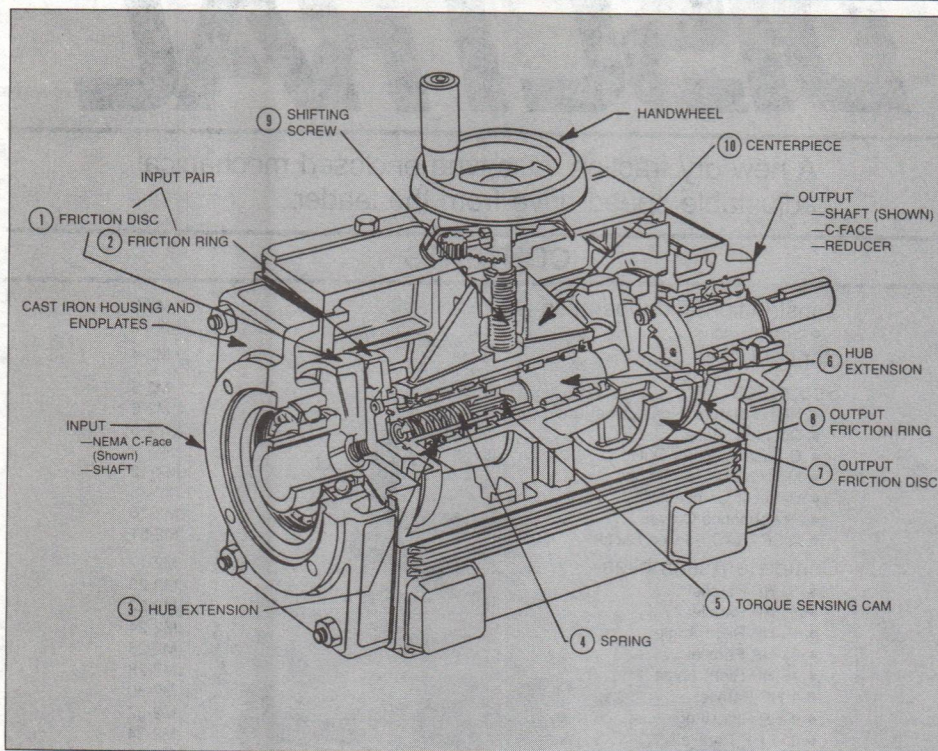
A new dry traction, disc-type enclosed mechanical adjustable speed drive from the leader.

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# Construction and Operation



## General

The DISCTRAC drive is a dry traction disc and ring-type mechanical adjustable speed drive. It provides infinitely variable output speed up to a 10:1 range from a constant speed input. This totally enclosed unit is designed for long life and low maintenance with easy servicing when required. DISCTRAC is available in four case sizes; 0002, 0003, 0004, and 0005, covering fractional through 5 horsepower.

## Power Flow

Power transmission through the DISCTRAC drive is accomplished by dry traction between two disc and friction ring assemblies mounted in series. Referring to the cutaway of the traction case, the power flow is as follows: constant speed motor input is applied to the flat cast iron **input disc (1)**. **Input friction ring (2)** is held at an angle to the input disc by **centerpiece (10)**, providing a single contact area. Power flows through the **hub extensions (3 & 6)** to the **output disc (7)** and **output friction ring (8)**.

## Torque Sensing

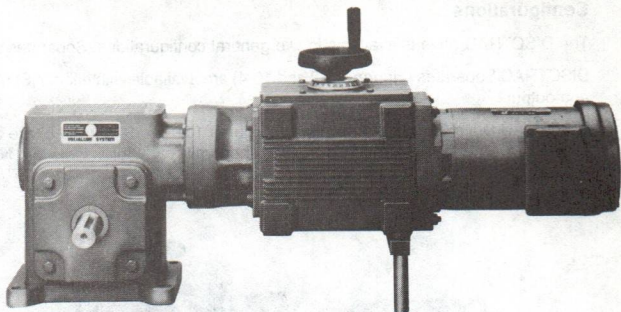
**Hub extensions (3 & 6)** are coupled by a torque-sensing **cam arrangement (5)** machined into the ends of the hub extensions. This cam automatically exerts axial force on the **rings (2 & 8)** and **discs (1 & 7)** in direct proportion to the torque transmission requirement as dictated by the load. The cam is assisted on start-up by the **spring (4)**.

## Speed Variation

Input to output speed ratio is determined by the radius of the contact area between the **friction rings (2 & 8)** and their **mating discs (1 & 7)**. Speed changes are made by repositioning the **centerpiece (10)**. **Shifting screw (9)** is threaded into the top of the centerpiece and moves the **input ring (3)** and **output disc (7)** vertically as the handwheel is revolved.



Double C-Face Separate



Complete Assembly  
(DISCTRAC with TIGEAR Right Angle  
Reducer and RELIANCE Motor)

## Product Offering

The DISCTRAC drive is available in four case sizes covering fractional through 5 horsepower input. All four case sizes are available in two general configurations:

- **Separates**—DISCTRAC Separates are freestanding, adjustable speed units with either NEMA C-face or standard shaft on the input and output. This design allows maximum flexibility in field mounting motors and gear reducers.
- **Complete Assemblies**—complete DISCTRAC drive assemblies are available that include motor, adjustable speed drive, and gearbox integrally mounted as a finished unit—ready for installation. Complete DISCTRAC drives are available with right angle or parallel gearing and various electrical and mechanical modifications.

## Motors

Standard motors for DISCTRAC drives are totally enclosed, fan-cooled, three-phase, 60 hertz, 230/460 volt, design B construction with a 1.0 service factor. Two pole (3,450 rpm) motors are used on some ratings as well as four pole (1,750 rpm). Common motor options are listed at the bottom of the rating pages.

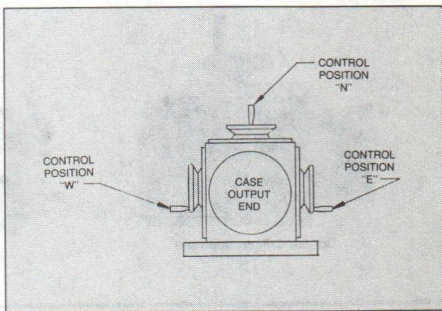
**NOTE: Fan cooled construction is mandatory on motors supplied by the customer.**

## Speed Range

Speed range for units with 1,750 rpm motors is 10:1. Units with 3,450 rpm motors have a speed range of 8:1.

## Controls

All DISCTRAC drives are standardly equipped with hand-wheel control for speed variation. A numbered dial located below the handwheel indicates relative speed position. Electric remote control can be supplied as an option.



## Control Position

DISCTRAC controls are normally supplied in the North (N) position as shown in the drawing below. Optional positions include West (W) and East (E). All control positions are referenced viewing the DiscTrac unit from the output end.

Additional information and technical assistance on DISCTRAC drives are available through Application Engineering at 812 376-1397.



# Configurations

## Configurations

The DISCTRAC drive is available in two general configurations: Separates and Complete Assemblies.

DISCTRAC Separates (Figures 10-2 and 10-4) are available with either NEMA C-face or standard shaft on the input and output.

DISCTRAC Drive Complete Assemblies (Figures 10-1, 10-3, and 10-5) are available with motor only, gearbox, or both. They are integrally mounted as a finished unit ready for installation. NOTE: Consult catalog and instruction manual for installation details and support assemblies.

Figure 10-1

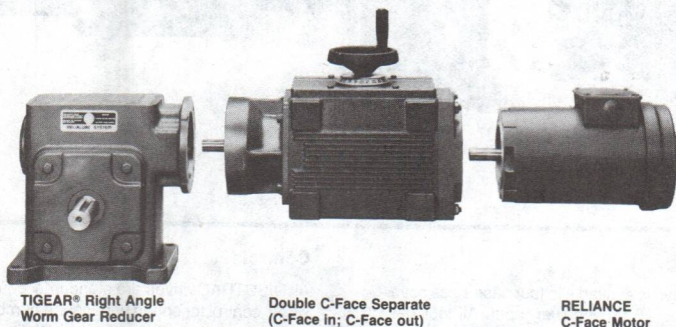


Figure 10-2

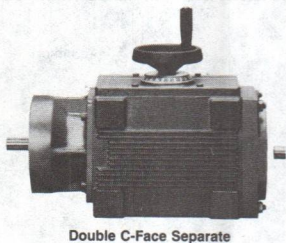


Figure 10-3



Figure 10-4

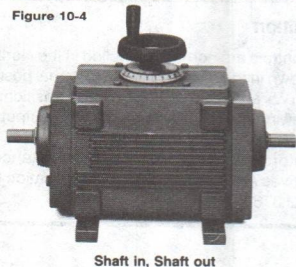
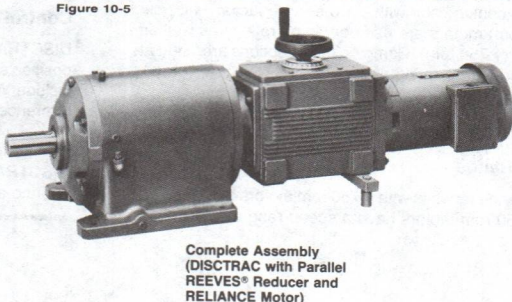
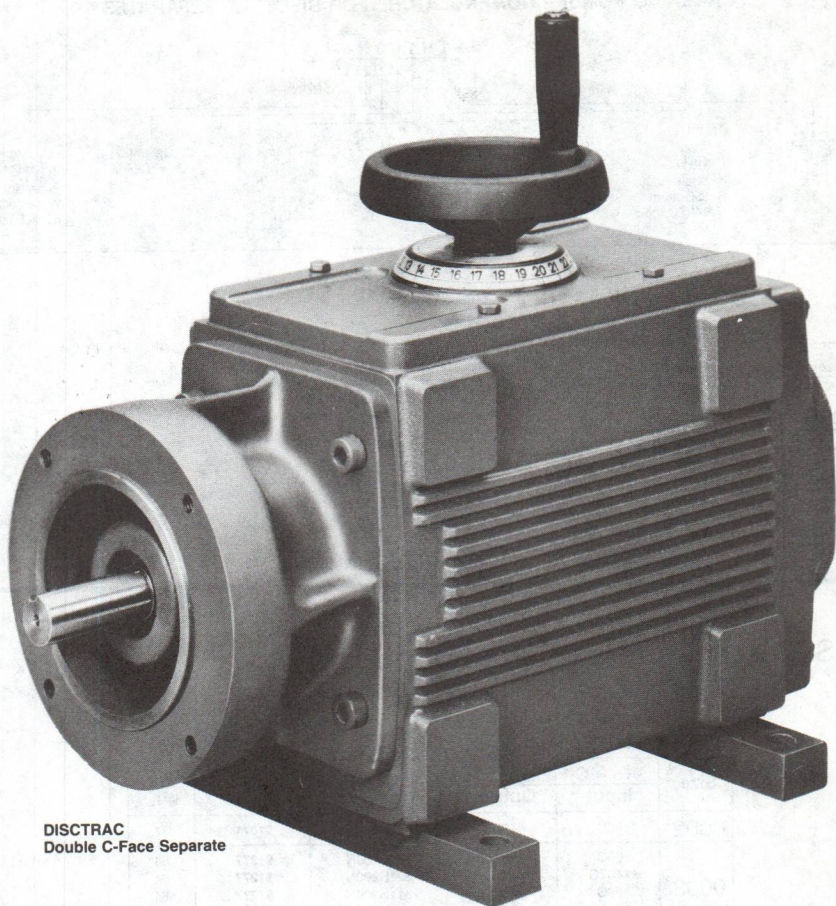


Figure 10-5





**DISCTRAC**  
**Double C-Face Separate**



# Nomenclature, Horsepower and Speed

## ORDERING NUMBER NOMENCLATURE FOR DISCTRAC SEPARATES

2 1 1 H 1 0 0 N

DISCTRAC  
Size

2  
3  
4  
5

Input  
Style

0 = Shaft Input  
1 = 56C Input  
2 = 140TC Input  
3 = 180TC Input

Reliance  
Internal  
Use

Control  
Type

H = Handwheel  
E = ERC  
S = Stub Shaft

Output  
Style

0 = Shaft Output  
1 = 56C Output  
2 = 140TC Output  
3 = 180TC Output

Options  
OI = Digital  
Tach.

Control  
Position

N = North  
W = West  
E = East

## Horsepower and Speed

Size	Max. Horsepower Input/Output (1)		Output RPM Max./Min.	
	@ 1750 RPM	@ 3450 RPM	@ 1750 RPM	@ 3450 RPM
0002	.50/.37	.75/.55	2000/200	3200/400
	.25/.19			
0003	1.0/.87	1.5/1.3	2000/200	3200/400
	.75/.62			
0004	2.0/1.8	3.0/2.6	2000/200	3200/400
	1.5/1.3			
0005	5.0/4.3	5.0/4.3	2000/200	3200/400
	3.0/2.6			

(1) See Performance Curves, page M2-16.

## Separates—Double C-Face

### Double C-Face Separates (2) (3)

### Discount RE-12f

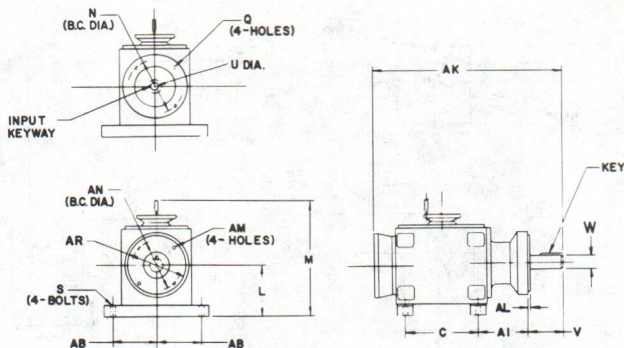
Size	C-Face		Ordering Number	List Price	Unit Wt.
	Input	Output			
0002	56C	56C	211H100N	\$1071	37
0003	56C	56C	311H100N	\$1277	64
	140TC	140TC	321H200N	\$1277	64
	56C	140TC	311H200N	\$1277	64
	140TC	56C	321H100N	\$1277	64
0004	140TC	140TC	421H200N	\$1423	91
	180TC	180TC	431H300N	\$2043	101
	140TC	180TC	421H300N	\$1423	101
	180TC	140TC	431H200N	\$2043	101
0005	180TC	180TC	531H300N	\$2557	171

(2) **NOTE:** All motors **must** be of fan cooled construction.

(3) When assembled to a gearbox DISCTRAC case **must** be supported to remove cantilever load from reducer input. See reducer compatibility chart.

# Separates—Double C-Face

C-Face In, C-Face Out Separates—Handwheel N  
Size: 0002-0005



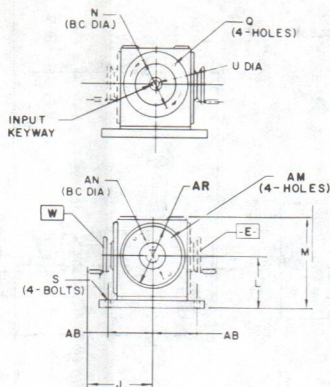
Assembly 300

SIZE	INPUT C-FACE	C	L	M	N	Q	S	INPUT U DIA.	BORE KEYWAY	V	W	AB	AI	AK	AL	AM	AN	AR	OUTPUT C-FACE	KEY
0002	56C	3.15	3.38	10.42	5.88	.44	.38	.625	.19x.09	2.06	.625	2.88	3.72	11.72	.12	3/8-16	5.88	4.50	56C	.19x.19x1.38
0003	56C	6.88	4.38	11.91	5.88	.44	.50	.625	.19x.09	2.06	.625	3.38	4.92	16.69	.19	3/8-16	5.88	4.50	56C	.19x.19x1.38
0003	140TC	6.88	4.38	11.91	5.88	.44	.50	.875	.19x.09	2.12	.875	3.38	4.92	16.69	.19	3/8-16	5.88	4.50	140TC	.19x.19x1.38
0003	56C	6.88	4.38	11.91	5.88	.44	.50	.625	.19x.09	2.12	.875	3.38	4.92	16.69	.19	3/8-16	5.88	4.50	140C	.19x.19x1.38
0003	140TC	6.88	4.38	11.91	5.88	.44	.50	.875	.19x.09	2.06	.625	3.38	4.92	16.69	.19	3/8-16	5.88	4.50	56C	.19x.19x1.38
0004	140TC	7.69	5.12	14.19	5.88	.44	.50	.875	.19x.09	2.12	.875	4.03	5.31	17.88	.19	3/8-16	5.88	4.50	140TC	.19x.19x1.38
0004	140TC	7.69	5.12	14.19	5.88	.44	.50	.875	.19x.09	2.62	1.125	4.03	5.62	18.69	.25	1/2-13	7.25	8.50	180TC	.25x.25x1.75
0004	180TC	7.69	5.12	14.19	7.25	.56	.50	1.125	.25x.12	2.62	1.125	4.03	5.62	19.09	.25	1/2-13	7.25	8.50	180TC	.25x.25x1.75
0004	180TC	7.69	5.12	14.19	7.25	.56	.50	1.125	.25x.12	2.12	.875	4.03	5.31	18.28	.19	3/8-16	5.88	4.50	140TC	.19x.19x1.38
0005	180TC	9.00	6.62	17.25	7.25	.56	.50	1.125	.25x.12	2.62	1.125	5.25	5.91	21.06	.25	1/2-13	7.25	8.50	180TC	.25x.25x1.75



# C-Face In, C-Face Out Separates—Handwheel W & E

## Size: 0002-0005



### Assembly 300

SIZE	INPUT C-FACE	C	J	L	M	N	Q	S	INPUT U DIA	BORE KEYWAY	V	W	AB	AB <sup>1</sup>	AI	AK	AL	AM	AN	AR	OUTPUT C-FACE	KEY
0002	56C	3.15	7.06	3.75	7.12	5.88	.44	.38	.625	.19x.09	2.06	.625	3.84	3.34	3.72	11.72	.12	3/8-16	5.88	4.50	56C	.19x.19x1.38
0003	56C	6.88	7.50	3.81	7.19	5.88	.44	.50	.625	.19x.09	2.06	.625	4.53	3.97	4.92	16.69	.19	3/8-16	5.88	4.50	56C	.19x.19x1.38
0003	140TC	6.88	7.50	3.81	7.19	5.88	.44	.50	.875	.19x.09	2.12	.875	4.53	3.97	4.92	16.69	.19	3/8-16	5.88	4.50	140TC	.19x.19x1.38
0003	56C	6.88	7.50	3.81	7.19	5.88	.44	.50	.625	.19x.09	2.12	.875	4.53	3.97	4.92	16.69	.19	3/8-16	5.88	4.50	140C	.19x.19x1.38
0003	140TC	6.88	7.50	3.81	7.19	5.88	.44	.50	.875	.19x.09	2.06	.625	4.53	3.97	4.92	16.69	.19	3/8-16	5.88	4.50	56C	.19x.19x1.38
0004	140TC	7.69	9.06	4.56	7.94	5.88	.44	.50	.875	.19x.09	2.12	.875	5.41	4.84	5.31	17.88	.19	3/8-16	5.88	4.50	140TC	.19x.19x1.38
0004	180TC	7.69	9.06	4.56	9.06	7.25	.56	.50	1.125	.25x.12	2.62	1.125	5.41	4.84	5.62	18.69	.25	1/2-13	7.25	8.50	180TC	.25x.25x1.75
0004	180TC	7.69	9.06	4.56	8.88	7.25	.56	.50	1.125	.25x.12	2.12	.875	5.41	4.84	5.31	18.28	.19	3/8-16	5.88	4.50	140TC	.19x.19x1.38
0005	180TC	9.00	10.66	5.50	10.00	7.25	.56	.50	1.125	.25x.12	2.62	1.125	6.91	6.47	5.91	21.06	.25	1/2-13	7.25	8.50	180TC	.25x.25x1.75

## Separates—C-Face In, Shaft Out

**C-Face In - Shaft Out DISCTRAC Separates (1)**

**Discount RE-12f**

Size	Input C-Face	Ordering Number	List Price	Unit Wt.
0002	56C	211H000N	\$1025	23
0003	56C	311H000N	\$1250	51
	140TC	321H000N	\$1250	51
0004	140TC	421H000N	\$1400	95
	180TC	431H000N	\$2020	95
0005	180TC	531H000N	\$2500	165

(1) All motors must be of fan cooled construction.  
For Dimensions see pages M2-64 & M2-65.

## Separates—Shaft In, C-Face Out

**Shaft In - C-Face Out DISCTRAC Separates (1)**

**Discount RE-12f**

Size	Output C-Face	Ordering Number	List Price	Unit Wt.
0002	56C	201H100N	\$1334	23
0003	56C	301H100N	\$1348	51
	140TC	301H200N	\$1348	51
0004	140TC	401H200N	\$1509	95
	180TC	401H300N	\$1509	95
0005	180TC	501H300N	\$2657	165

(1) For Dimensions see pages M2-64 & 65.

## Separates—Shaft In, Shaft Out

**Shaft In, Shaft Out Separates (1)**

**Discount RE-12f**

Size	Ordering Number	List Price
0002	201H000N	\$1082
0003	301H000N	\$1321
0004	401H000N	\$1486
0005	501H000N	\$2600

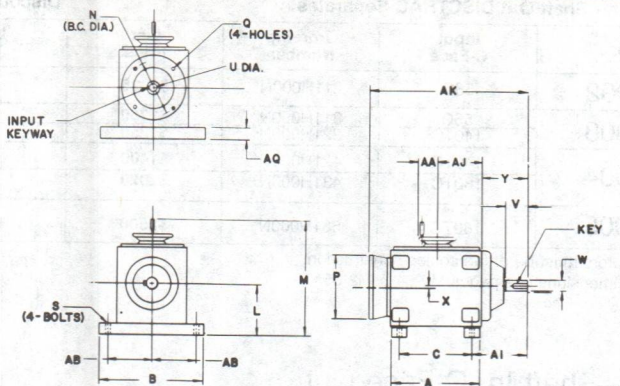
(1) For Dimensions see pages M2-66 & 67.



# Separates—C-Face In, Shaft Out

## C-Face In, Shaft Out Separates—Handwheel N

Size: 0002-0005

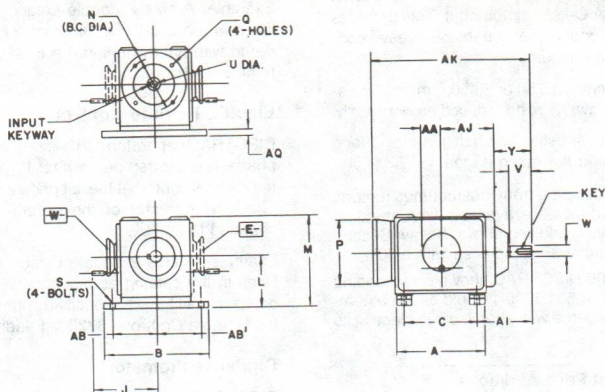


Assembly 300

SIZE	A	B	C	L	M	N	P	Q	S	INPUT U DIA	BORE KEYWAY	V	W	X	Y
0002	4.15	6.75	3.15	3.38	10.42	5.88	6.72	.44	.38	.625	19x.09	1.88	.625	0	2.84
0003	8.14	8.00	6.88	4.38	11.41	5.88	6.72	.44	.50	.625	19x.09	2.00	.875	.39	4.44
0003	8.14	8.00	6.88	4.38	11.41	5.88	6.72	.44	.50	.875	19x.09	2.00	.875	.39	4.44
0004	8.93	9.31	7.69	5.12	14.19	5.88	6.72	.44	.50	.875	19x.09	2.00	.875	.39	4.81
0004	8.93	9.31	7.69	5.12	14.19	7.25	8.59	.56	.50	1.125	25x.12	2.00	.875	.39	4.81
0005	10.31	11.75	9.00	6.62	17.25	7.25	8.59	.56	.50	1.125	25x.12	2.50	1.125	.47	5.69
SIZE	AA	AB	AI	AJ	AK	AQ	MOTOR FRAME	KEY							
0002	1.97	2.88	3.44	2.56	9.38	.62	56C	.19x.19							
0003	1.97	3.38	5.38	4.38	15.00	.50	56C	.19x.19							
0003	1.97	3.38	5.38	4.38	15.00	.50	140TC	.19x.19							
0004	2.47	4.03	5.94	5.00	16.38	.50	140TC	.19x.19							
0004	2.47	4.03	5.94	5.00	16.78	.50	180TC	.19x.19							
0005	3.15	5.25	7.12	5.94	19.64	.50	180TC	.25x.25							

# C-Face In, Shaft Out Separates—Handwheel W & E

Size: 0002-0005



Assembly 300

SIZE	A	B	C	J	L	M	N	P	Q	S	INPUT U DIA	BORE KEYWAY	V	W	Y
0002	4.15	8.19	3.15	7.06	3.75	7.12	5.88	6.72	.44	.38	.625	.19x.09	1.88	.625	2.84
0003	8.14	9.75	6.88	7.50	3.81	7.19	5.88	6.72	.44	.50	.625	.19x.09	2.00	.875	4.44
0003	8.14	9.75	6.88	7.50	3.81	7.19	5.88	6.72	.44	.50	.875	.19x.09	2.00	.875	4.44
0004	8.93	11.50	7.69	9.06	4.56	7.94	5.88	6.72	.44	.50	.875	.19x.09	2.00	.875	4.81
0004	8.93	11.50	7.69	9.06	4.56	8.88	7.25	8.59	.56	.50	1.125	.25x.12	2.00	.875	4.81
0005	10.31	14.62	9.00	10.66	5.50	9.94	7.25	8.59	.56	.50	1.125	.25x.12	2.50	1.125	5.69

SIZE	AA	AB	AB <sup>1</sup>	AI	AJ	AK	AQ	MOTOR FRAME	KEY
0002	1.97	3.84	3.34	3.44	2.56	9.38	.50	56C	.19x.19
0003	1.97	4.53	3.97	5.38	4.38	15.00	.50	56TC	.19x.19
0003	1.97	4.53	3.97	5.38	4.38	15.00	.50	140TC	.19x.19
0004	2.47	5.41	4.84	5.94	5.00	16.38	.50	140TC	.19x.19
0004	2.47	5.41	4.84	5.94	5.00	16.78	.50	180TC	.19x.19
0005	3.15	6.19	6.47	7.12	5.94	19.62	.50	180TC	.25x.25



# Separates—Modifications and Options

## Shaft Input

DISCTRAC drives can be supplied with standard shaft input in place of NEMA C-face motor input. This provides the capability of direct coupling or V-belt and sheave connection to foot mounted motors.

When input is below normal 1,750 or 3,450 rpm, the horsepower capacity of the drive must be reduced proportionally.

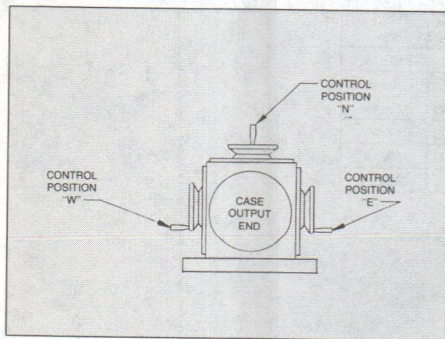
List price deductions for substituting shaft input for C-face motor input are found on the rating pages.

For belt drive or direct coupling from foot mounted motors, separate DISCTRAC drives are available with standard shaft input at the list price addition shown below. Second character of ordering number is replaced with a "0".

Example: The size 0005 DISCTRAC shown on preceding page as ordering number 531H000N would become number 501H000N when ordered with shaft input in place of its C-face input mounting.

Shaft Input List Price Additions	
Size	List Adder
0002	\$ 57
0003	\$ 71
0004	\$ 86
0005	\$100

## Control Position



Controls for DISCTRAC separates are standardly supplied in the North (N) position as designated by "N" as the last character of the ordering number. Controls in position East

(E) or West (W) are available at no charge by changing the last character of the ordering number to "E" or "W".

Example: A size 2 double C-face DISCTRAC separate listed in the catalog as number 211H100N could be ordered with handwheel in the East position by specifying number 211H100E.

## Electric Remote Control

DISCTRAC separates can be supplied with 115 volt, single phase, electric remote control in place of the standard handwheel control at the list price additions shown below. The 4th character of the ordering number should be changed to an "E".

Example: A size 2 double C-face DISCTRAC separate listed in the catalog as number 211H100N would be ordered with an ERC by specifying number 211E100N. Electric Remote Control—\$728 list addition, sizes 2, 3, 4, 5.

## Digital Tachometer

DISCTRAC separates are available with digital readout tachometers. Tachometer is powered by 115 volt, single phase A-C, and can be programmed to read in any time rate unit such as rpm, fpm, tons per hour, etc. When specified, tachometers with reverse time readings, such as minutes baking time, are available.

### TACHOMETER LIST PRICE ADDITIONS

ITEM	LIST ADDER
Basic Package with Panel Mount Meter and Ten Feet of Signal Cable	\$1,019
Add for Bench Mount Meter	\$92
Add for Explosion Proof Magnetic Pickup (1)	\$497
Add for Explosion Proof Meter Housing (2)	\$918
Add for NEMA 4X, 13 Meter Housing	\$216
Additional Signal Cable (Per Foot)	\$2
(1) Class I Groups A, B, C, D. Class II, Groups E, F, G. Signal input cable <i>not</i> supplied.	
(2) Class I, Group D Class II, Groups E, F, G. Signal input cable and A-C power cord <i>not</i> supplied.	

# Reducer Compatibility

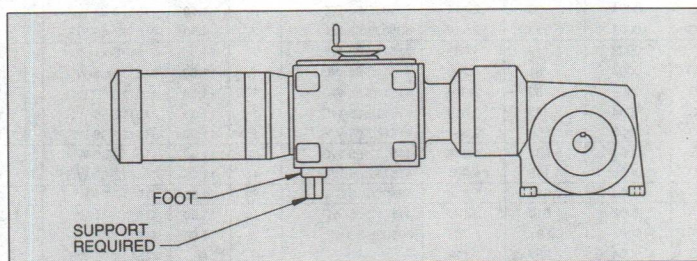
Each DISCTRAC separate with C-face output will mount to several DODGE® and MASTER® reducers. The following compatibility charts list the possible DISCTRAC reducer combinations.

## Horsepower Capacity

The charts are based on physical compatibility of mating C-faces. Refer to DODGE Catalog to insure that reducer selected has adequate horsepower capacity.

## DISCTRAC Support

When mounted to C-face reducers, DISCTRAC cases must be supported to remove cantilever load from reducer input (See drawing below). The charts list the proper support foot height for control position "N", "E", or "W". Customer must supply case support to this dimension or order support kit by the appropriate part number shown.



## TIGEAR® C-Face Reducers

**TIGEAR Compatibility Chart (1) (2)**

TIGEAR Size	C-Face Mount	Fits DISCTRAC Size	Support Foot Height (Inch)		Support Kit Part Numbers					
			Control Position "N"	Control Position "E" or "W"	Control Position "N"	Qty. Req.	\$ List Price	Control Position "E" or "W"	Qty. Req.	\$ List Price
133	56C	2	.199	.718	605036-53-CL	2	4.50	605036-53-CP	2	4.50
150	56C	2	.619	1.138	605036-53-CN	2	4.50	415112-71-H	2	4.50
175	56C	2	1.119	1.638	415112-65-WD	1	11.50	415112-71-J	2	4.50
	56C/140TC	3	.181	1.205	605036-53-DA	2	4.50	415112-65-WF	1	11.50
200	56C	2	1.619	2.138	415112-65-WD	1	11.50	415112-71-L	2	4.50
	56C/140TC	3	.681	1.705	605036-53-DF	2	4.50	415112-65-WF	1	11.50
262	56C	2	2.929	3.448	415112-65-WD	1	11.50	415112-71-N	2	4.50
	56C/140TC	3	1.991	3.015	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	140TC	4	1.243	2.424	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	4	1.243	2.424	415112-65-WF	1	11.50	415112-65-WF	1	11.50
350	56C	2	5.119	5.638	415112-65-WE	1	11.50	415112-71-S	2	4.50
	56C/140TC	3	4.181	5.205	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	140TC	4	3.433	4.614	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	180TC	4	3.433	4.614	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	180TC	5	1.898	3.551	415112-65-WF	1	11.50	415112-65-WG	1	11.50
H419	180TC	4	4.373	5.554	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	180TC	5	2.838	4.491	415112-65-WF	1	11.50	415112-65-WG	1	11.50

(1) For use with 1750 RPM drive motors only

(2) This chart depicts physical compatibility only. Refer to Rating Tables for TIGEAR in G89 Catalog to ensure adequate reducer horsepower capacity.



# Reducer Compatibility

**MASTER® XL Right Angle Compatibility Chart (1)**

XL Size	C-Face Mount	Fits DISCTAC Size	Support Foot Height (Inch)		Support Kit Part Numbers					
			Control Position "N"	Control Position "E" or "W"	Control Position "N"	Qty. Req.	\$ List Price	Control Position "E" or "W"	Qty. Req.	\$ List Price
WM12A	56C	0002	.369	.888	605036-53-CM	2	4.50	605036-53-CR	2	4.50
WM16A	56C	0002	1.119	1.638	415112-65-WD	1	11.50	415112-71-J	2	4.50
	56C/140TC	0003	.181	1.205	605036-53-DA	2	4.50	415112-65-WF	1	11.50
WM21A	56C	0002	2.619	3.138	415112-65-WD	1	11.50	415112-71-M	2	4.50
	56C/140TC	0003	1.681	2.705	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	140TC	0004	.933	2.114	605036-53-DK	2	4.50	415112-65-WF	1	11.50
	180TC	0004	.933	2.114	605036-53-DK	2	4.50	415112-65-WF	1	11.50
WM28A	56C	0002	4.119	4.638	415112-65-WE	1	11.50	415112-71-R	2	4.50
	56C/140TC	0003	3.181	4.205	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	140TC	0004	2.433	3.614	415112-65-WF	1	11.50	415112-65-WG	1	11.50
	180TC	0004	2.433	3.614	415112-65-WF	1	11.50	415112-65-WG	1	11.50
	180TC	0005	.898	2.551	415112-65-WH	1	11.50	415112-65-WF	1	11.50
WM40A	180TC	0004	5.683	6.864	415112-65-WG	1	11.50	415112-65-WH	1	11.50
	180TC	0005	4.148	5.801	415112-65-WG	1	11.50	415112-65-WG	1	11.50
CM12A	56C	0002	.619	1.138	605036-53-CN	2	4.50	415112-71-H	2	4.50
CM16A	56C	0002	1.619	2.138	415112-65-WD	1	11.50	415112-71-L	2	4.50
	56C/140TC	0003	.681	1.705	605036-53-DF	2	4.50	415112-65-WF	1	11.50
	140TC	0004	-.067 (2)	1.114	—	—	—	415112-65-WF	1	11.50
CM21A	56C	0002	2.239	3.758	415112-65-WD	1	11.50	415112-71-P	2	4.50
	56C/140TC	0003	2.301	3.325	415112-65-WF	1	11.50	415112-65-WG	1	11.50
	140TC	0004	1.553	2.734	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0004	1.553	2.734	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0005	.018 (3)	1.671	—	—	—	415112-65-WF	1	11.50
CM28A	56C/140TC	0003	4.301	5.325	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	140TC	0004	3.553	4.734	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	180TC	0004	3.553	4.734	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	180TC	0005	2.018	3.671	415112-65-WF	1	11.50	415112-65-WG	1	11.50
CM40A	180TC	0004	6.433	7.614	415112-65-WH	1	11.50	415112-65-WH	1	11.50
	180TC	0005	4.898	6.551	415112-65-WG	1	11.50	415112-65-WH	1	11.50

- (1) This chart depicts physical compatibility only. Refer to Rating Tables for TIGEAR in G89 Catalog to ensure adequate reducer horsepower capacity.  
 (2) Customer supplied spacers and/or shims required under reducer feet  
 (3) Customer supplied shims required under traction case.

**MASTER XL Parallel Compatibility Chart (1)**

XL Size	C-Face Mount	Fits DISCTAC Size	Support Foot Height (Inch)		Support Kit Part Numbers					
			Control Position "N"	Control Position "E" or "W"	Control Position "N"	Qty. Req.	\$ List Price	Control Position "E" or "W"	Qty. Req.	\$ List Price
SM16A	56C	0002	1.119	1.638	415112-65-WD	1	11.50	415112-71-J	2	4.50
DM16A	56C/140TC	0003	.181	1.205	605036-53-DA	2	4.50	415112-65-WF	1	11.50
	140TC	0004	-.567 (2)	.614	—	—	—	605036-53-DE	2	4.50
TM16A	56C	0002	1.239	1.758	415112-65-WD	1	11.50	415112-71-K	1	11.50
	56C/140TC	0003	.301	1.325	605036-53-DB	2	4.50	415112-65-WF	1	11.50
	140TC	0004	-.447 (2)	.734	—	—	—	605036-53-DH	2	4.50
SM21A	56C/140TC	0003	1.801	2.825	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	140TC	0004	1.053	2.234	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0004	1.053	2.234	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0005	-.482 (2)	1.171	—	—	—	415112-65-WF	1	11.50
DM21A	56C/140TC	0003	1.181	2.205	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	140TC	0004	.433	1.614	605036-53-DC	2	4.50	415112-65-WF	1	11.50
	180TC	0004	.433	1.614	605036-53-DC	2	4.50	415112-65-WF	1	11.50
	180TC	0005	-1.102 (2)	.551	—	—	—	605036-53-DD	2	4.50
TM21A	56C/140TC	0003	2.301	3.325	415112-65-WF	1	11.50	415112-65-WG	1	11.50
	140TC	0004	1.553	2.734	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0004	1.553	2.734	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0005	.018 (3)	1.671	—	—	—	415112-65-WF	1	11.50
SM28A	180TC	0004	2.933	4.114	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0005	1.398	3.051	415112-65-WF	1	11.50	415112-65-WF	1	11.50
DM28A	56C/140TC	0003	2.181	3.205	415112-65-WF	1	11.50	415112-65-WG	1	11.50
	140TC	0004	1.433	2.614	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0004	1.433	2.614	415112-65-WF	1	11.50	415112-65-WF	1	11.50
	180TC	0005	-.102 (2)	1.551	—	—	—	415112-65-WF	1	11.50
TM28A	56C/140TC	0003	3.801	4.825	415112-65-WG	1	11.50	415112-65-WG	1	11.50
	140TC	0004	3.053	4.234	415112-65-WF	1	11.50	415112-65-WG	1	11.50
	180TC	0004	3.053	4.234	415112-65-WF	1	11.50	415112-65-WG	1	11.50
	180TC	0005	1.518	3.171	415112-65-WF	1	11.50	415112-65-WG	1	11.50

- (1) This chart depicts physical compatibility only. Refer to Rating Tables for TIGEAR in G89 Catalog to ensure adequate reducer horsepower capacity.  
 (2) Customer supplied spacers and/or shims required under reducer feet.  
 (3) Customer supplied shims required under traction case.

**DISCTAC™ Drives—Horizontal Foot Kits for East-West Control Position**

DRIVE SIZE	PART NUMBER	LIST PRICE	APPROX. WEIGHT
2	415112-65-XT	\$43	5
3	415112-65-XV	\$43	5
4	415112-65-XW	\$43	5
5	415112-65-XY	\$43	5

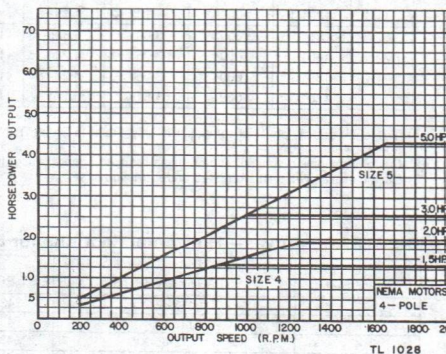
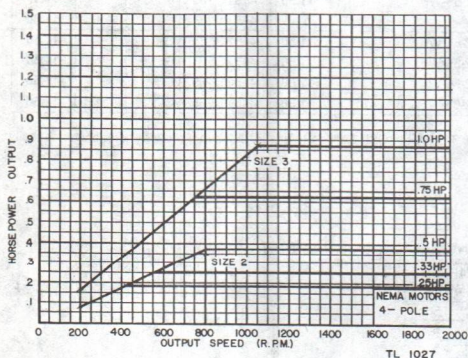
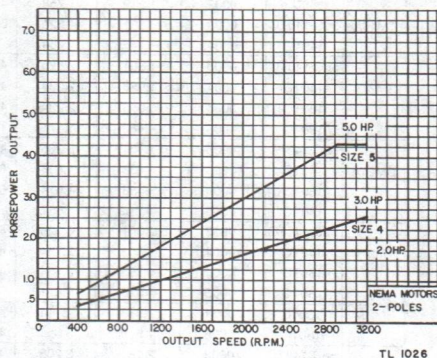
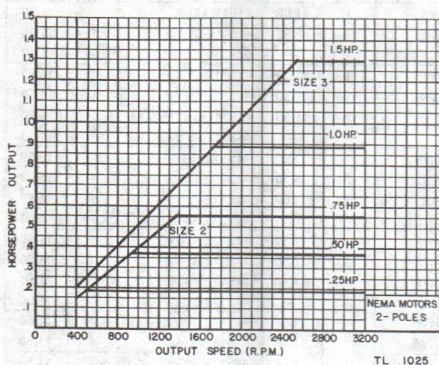


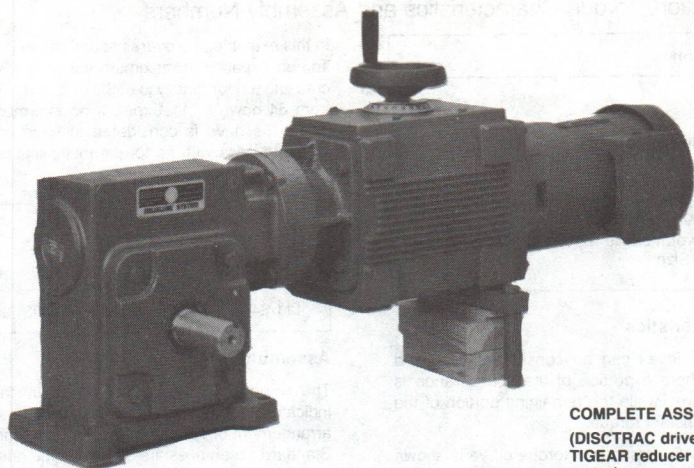
# Separates—Performance Curves

Performance Curves TL1025-TL1028 define the constant horsepower and constant torque range for DISCTRAC separates. These curves allow the user to determine the lowest rpm at which a given size drive can operate with full rating.

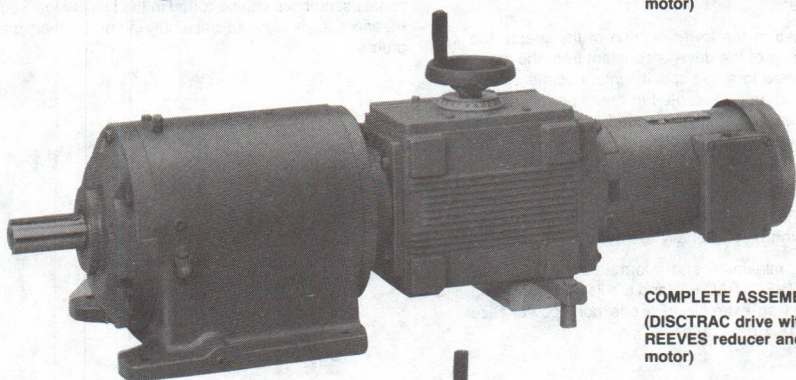
**NOTE:** Curves TL1025 and TL1026 apply to two pole; 3,450 rpm motors. Curve TL1027 and TL 1028 apply to four pole; 1,750 rpm motors.

Example: TL1027 rates a size 3 DISCTRAC drive at 1 HP in/.87 HP out for a 1,750 rpm motor input. Available output speeds are 2,000/200 rpm. Based on the curve, the maximum rpm could be set as low as 1,050 rpm and still maintain this 1 HP in/.87 HP out rating. Operation below this point requires derating of the drive according to the curve.

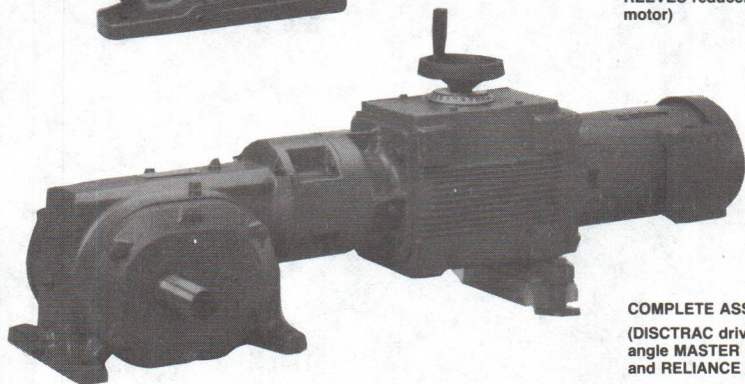




**COMPLETE ASSEMBLY**  
(DISCTRAC drive with DODGE  
TIGEAR reducer and RELIANCE  
motor)



**COMPLETE ASSEMBLY**  
(DISCTRAC drive with parallel  
REEVES reducer and RELIANCE  
motor)



**COMPLETE ASSEMBLY**  
(DISCTRAC drive with right  
angle MASTER gear reducer  
and RELIANCE motor)



# Complete Assemblies

## Size Designation, Torque Characteristics and Assembly Numbers

### Size Designation

Example: 13 R2

Where:

13—Reducer Size

R—Type of Gearing

C = XL combination right angle

G = TIGEAR single reduction right angle

R = REEVES parallel

W = XL worm single reduction right angle

2—DISCTRAC Size

### Torque Characteristics

Most DISCTRAC drives can be considered as mixed torque devices where a portion of the speed range is constant horsepower, while the remaining portion of the speed range is constant torque.

A typical DISCTRAC horsepower/torque curve is shown on page M2-19.

As demonstrated in the lower section of the graph, the horsepower rating of the drive is constant from the maximum output speed to some specific intermediate speed. Delivered torque, as represented in the upper section of the graph, increases linearly as speed is reduced in the constant horsepower range.

At the intermediate speed, maximum torque capacity is achieved. When output speed is reduced below this point, this maximum torque value is still available with horsepower decreasing proportionally to speed.

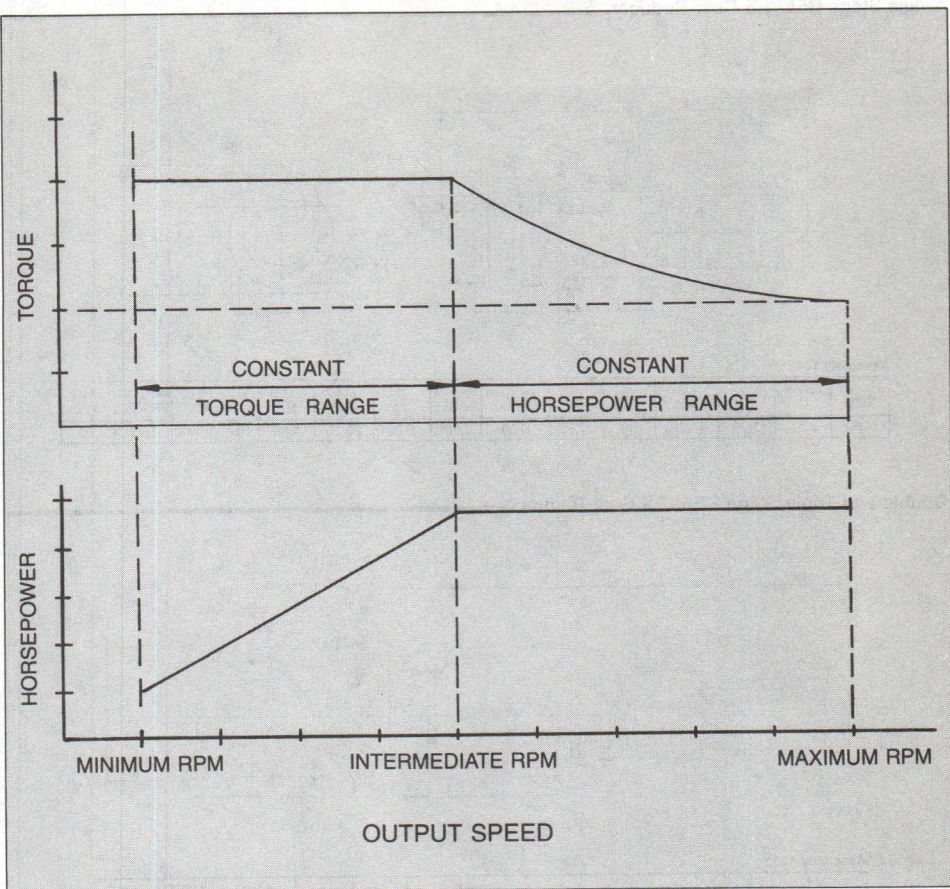
The maximum, minimum, and intermediate speeds are unique to each DISCTRAC unit and are listed in the rating tables. Below is an example of a one horsepower Size 16W3 with an 18:1 gear ratio.

In this example, the overall speed range is 111/11.1 rpm. Torque capacity at maximum speed is 385.8 in. lb., increasing proportionally to 656.9 in. lb. of torque is available from 64 down to 11.1 rpm. If no intermediate speed is listed, the drive is considered to have constant torque characteristics with no torque multiplication below maximum speed.

RPM MAXIMUM INTERMEDIATE MINIMUM	TORQUE (In. Lb.) @ MAX./INT. & MIN. RPM	UNIT SIZE	GEAR RATIO	\$ LIST PRICE
111/64/11.1	385.8/656.9	16W3	18	2,121

### Assembly Numbers

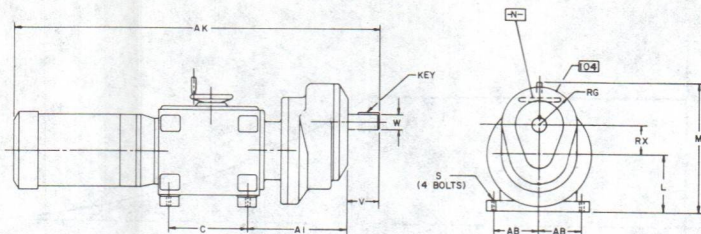
The dimension drawings that accompany the rating tables indicate assembly numbers. These numbers identify the arrangement of components and the intended mounting. Standard assemblies are shown on the rating pages. Optional assemblies can be found in the Dimension Section. Please specify desired assembly number when placing orders.





# 1/4 HP Parallel Complete Assemblies

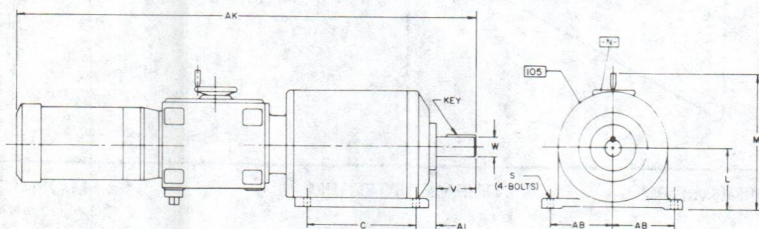
## Single Stage REEVES Gear Reducer



Assembly 104

SIZE	C	L	M	S	V	W <sup>+ .0000</sup> <sub>- .0005</sub>	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
01R2	3.15	3.75	10.75	.38	1.63	.750	2.88	6.03	23.25	1.50	.19x.19x1.00	56C	60

## Double and Triple Stage REEVES Gear Reducer



Assembly 105

SIZE	C	L	M	S	V	W <sup>+ .0000</sup> <sub>- .0005</sub>	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
02R2	6.12	3.75	10.75	.38	1.88	.875	3.31	2.81	29.44	.19x.19x1.25	56C	70
03R2	6.12	3.75	10.75	.38	1.88	.875	3.31	2.81	29.44	.19x.19x1.25	56C	75
13R2	10.25	4.62	11.62	.50	2.38	1.125	3.75	1.44	31.56	.25x.25x1.56	56C	75

For complete dimensions and optional assemblies refer to dimension section.

## 1/4 HP Parallel Ratings

## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/600/400	3.7/20	0002*	—	1074
2655/488/332	4.4/23.8	01R2*	1.23	1191
2000/500/200	6/24	0002	—	1074
1714/326/214	6.8/35.6	01R2*	1.84	1191
1660/407/166	7/28.5	01R2	1.23	1191
1308/333/131	8.9/34.9	01R2	1.50	1191
1071/272/107	10.9/42.7	01R2	1.84	1191
866/222/86.6	13.4/52.3	01R2	2.25	1191
730/181/73	15.9/64.2	01R2	2.76	1191
606/148/60.6	19.2/78.5	01R2	3.38	1191
493/121/49.3	23.6/96	01R2	4.13	1191
389/99/38.9	29.9/117.3	01R2	5.06	1256
324/81/32.4	35.9/143.4	01R2	6.20	1256
263/66/26.3	43.3/172.4	02R2	7.59	1291
215/54/21.5	52.9/210.7	02R2	9.30	1333
175/44/17.5	65/258.6	02R2	11.4	1394
143/36/14.3	79.6/316	02R2	14.0	1415
117/29/11.7	97.2/392.3	02R2	17.1	1430
95.6/24/9.6	119/474	02R2	20.9	1471
78/20/7.8	145.9/568.8	02R2	25.6	1497
63.7/19/6.4	178.6/598.7	02R2	31.4	1518
52/21/5.2	214.2/530.3	03R2	38.4	1562
42.4/19/4.2	262.7/586.1	03R2	47.1	1648
34.7/19/3.5	320.9/586.1	03R2	57.7	1692
27.7/8.5/2.8	402/1310	13R2	71.0	1768
23.5/8.3/2.4	473.9/1341	13R2	84.0	1777
21.3/8.7/2.1	522.8/1280	13R2	92.0	1821
18/8.1/1.8	618.7/1374.9	13R2	111	1877
16/14.8/1.6	696/696	13R2	122	1933
13.6/—/1.4	818.9/818.9	13R2	145	2039
12.3/—/1.2	905.4/905.4	13R2	163	2048

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	\$160
Easy Clean EZFC	\$185
Explosion Proof XPFC (2)	\$215
Energy Efficient SXE	\$235

**Standard Modifications**

Shaft Input (unit supplied less motor)

**\$188** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

ERC without pushbutton **\$683** list addition

DAC with meter **\$1650** list addition

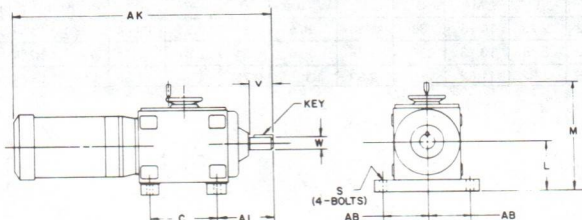
DAC without meter **\$1162** list addition

(2) CL. I GP. D, CL. II GP. F & G

\*3450 RPM Motor

- (1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also available at no charge.

## Shaft Output



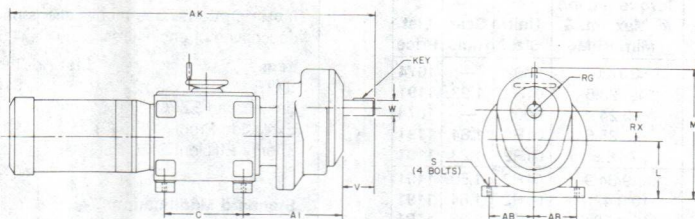
Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0002	3.15	3.38	10.42	.38	1.88	.625	2.88	3.44	18.81	.19x.19	56C	43



# 1/2 HP Parallel — Complete Assemblies

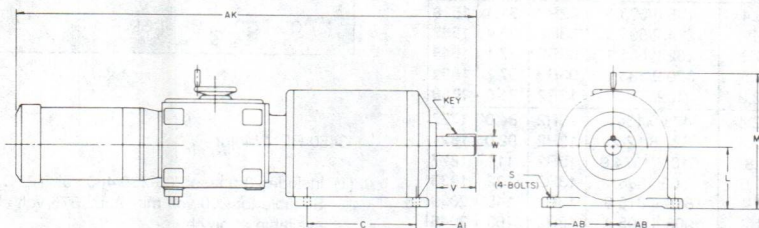
## Single Stage REEVES Gear Reducer



Assembly 104

SIZE	C	L	M	S	V	W - .0005 + .0000	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
01R2	3.15	3.75	10.75	.38	1.63	.750	2.88	6.03	23.25	1.50	.19x.19x1.00	56C	60

## Double and Triple Stage REEVES Gear Reducer



Assembly 105

SIZE	C	L	M	S	V	W - .0005 + .0000	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
02R2	6.12	3.75	10.75	.38	1.88	.875	3.31	2.81	29.44	.19x.19x1.25	56C	70
03R2	6.12	3.75	10.75	.38	1.88	.875	3.31	2.81	29.44	.19x.19x1.25	56C	75
13R2	10.25	4.62	11.62	.50	2.38	1.125	3.75	1.44	31.56	.25x.25x1.56	56C	75

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 1/2 HP Parallel Ratings

## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/1000/400	7.3/23.3	0002"	—	<b>1244</b>
2601/813/325.2	8.7/27.8	01R2"	1.23	<b>1244</b>
2000/800/200	11.3/28.3	0002	—	<b>1244</b>
1739/543.5/217.4	13/41.6	01R2"	1.84	<b>1244</b>
1626/650.4/162.6	13.9/34.8	01R2	1.23	<b>1244</b>
1333/533.3/133.3	17/42.4	01R2	1.50	<b>1244</b>
1087/434.8/108.7	20.8/52	01R2	1.84	<b>1244</b>
888.9/355.6/88.9	25.5/63.6	01R2	2.25	<b>1253</b>
724.6/289.9/72.5	31.2/78	01R2	2.76	<b>1265</b>
591.7/236.7/59.2	38.2/95.6	01R2	3.38	<b>1297</b>
484.3/193.7/48.4	46.7/116.8	01R2	4.13	<b>1318</b>
395.3/158.1/39.5	57.2/143.1	01R2	5.06	<b>1365</b>
322.6/129/32.3	70.1/175.3	01R2	6.20	<b>1377</b>
263.5/105.4/26.4	84.1/210.2	02R2	7.59	<b>1397</b>
215.1/86/21.5	103/257.5	02R2	9.30	<b>1409</b>
175.4/70.2/17.5	126.3/315.7	02R2	11.4	<b>1430</b>
142.9/57.1/14.3	155.1/387.7	02R2	14.0	<b>1453</b>
117/46.8/11.7	189.4/473.5	02R2	17.1	<b>1486</b>
95.7/38.3/9.6	231.5/578.8	02R2	20.9	<b>1518</b>
78.1/31.3/7.8	283.6/708.9	02R2	25.6	<b>1539</b>
63.7/25.5/6.4	347.8/869.5	02R2	31.4	<b>1562</b>
52.1/20.8/5.2	416.4/724.2	03R2	38.4	<b>1603</b>
42.5/17/4.2	510.7/804.3	03R2	47.1	<b>1692</b>
34.7/13.9/3.5	625.7/782.1	03R2	57.7	<b>1745</b>
28.2/11.3/2.8	769.9/1283	13R2	71	<b>1756</b>
23.8/9.5/2.4	910.9/1301	13R2	84	<b>1898</b>
21.7/8.7/2.2	997.6/1247	13R2	92	<b>1951</b>
18/7.2/1.8	1203/1337	13R2	111	<b>1995</b>

# Accessories

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	<b>\$160</b>
Easy Clean EZFC	<b>\$185</b>
Explosion Proof XPFC (2)	<b>\$215</b>
Energy Efficient SXE	<b>\$235</b>

## Standard Modifications

Shaft Input (unit supplied less motor)

**\$173** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

ERC without pushbutton **\$683** list addition

DAC with meter **\$1650** list addition

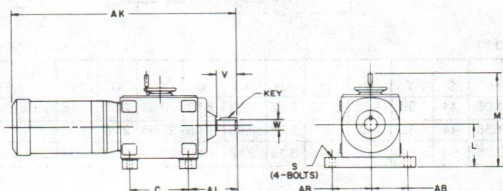
DAC without meter **\$1162** list addition

(2) CL. I GP. D, CL. II GP. F & G

\*3450 RPM Motor

- (1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also available at no charge.

# Shaft Output



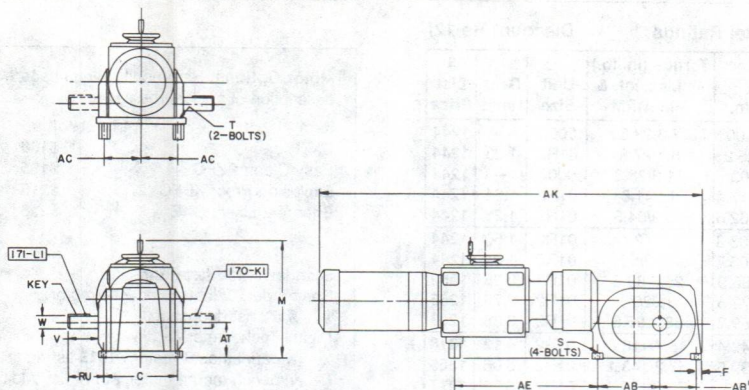
Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0002	3.15	3.38	10.42	.38	1.88	.625	2.88	3.44	18.81	.19x.19	56C	43



# 1/2 HP Right Angle — Complete Assemblies

## MASTER Combination Right Angle Gear Reducer



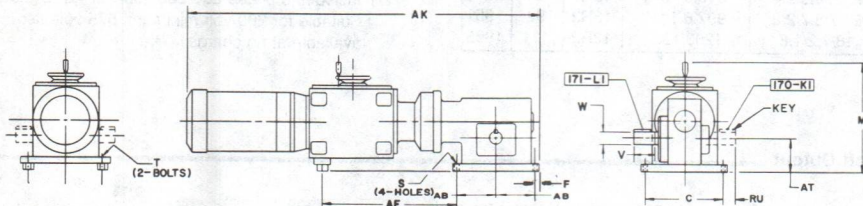
Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W <sup>+ .0000</sup> W <sup>- .0005</sup>	AB	AB'	AC	AE
12C2	5.00	.50	11.06	.31	.38	2.00	.875	4.00	3.00	2.88	10.81
16C2	6.50	.50	12.06	.38	.38	2.50	1.125	5.50	3.50	2.88	10.69

SIZE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
12C2	30.50	2.50	2.62	.19x.19x1.25	56C	88
16C2	32.50	3.00	2.88	.25x.25x1.75	56C	115

## DODGE TIGEAR Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W	AB	AC	AE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
15G2	4.31	.44	11.06	.44	.38	1.88	.750	2.62	2.88	8.69	26.62	2.50	2.16	.19x.19x1.00	56C	70
17G2	4.50	.59	11.56	.44	.38	1.62	.875	2.88	2.88	9.06	27.56	2.75	2.09	.19x.19x1.00	56C	85
20G2	4.69	.44	12.06	.50	.38	2.00	1.000	3.19	2.88	8.69	27.72	3.00	2.38	.25x.25x1.25	56C	95

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

# Accessories

## 1/2 HP Right Angle Ratings Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
640/200/80	25.9/82.4	12W2*	5	<b>1789</b>
400/160/40	51.9/107.8	15G2	5	<b>1789</b>
266.7/106.7/26.6	64.9/162.5	12W2	7.5	<b>1789</b>
200/80/20	86.5/203.9	15G2	10	<b>1789</b>
157.5/63/15.7	109.5/264	12W2	12.7	<b>1789</b>
133.3/53.3/13.3	127/306.4	15G2	15	<b>1789</b>
111.1/64.4/11.1	150.6/272.6	12W2	18	<b>1789</b>
100/40/10	159.8/384.6	15G2	20	<b>1789</b>
80/70/8	205.7/237.6	15G2	25	<b>1789</b>
66.7/58.3/6.7	218.3/285.1	15G2	30	<b>1789</b>
50/43.8/5	274.7/277.3	15G2	40	<b>1833</b>
40/23.2/4	336.8/548.1	17G2	50	<b>1889</b>
33.3/24.2/3.3	399.6/531.8	20G2	60	<b>1889</b>
28.6/16.6/2.9	585.5/1028	12C2	70	<b>1889</b>
23.3/20.4/2.3	691.1/799.1	12C2	86	<b>1889</b>
19.8/17.3/2	798.1/921.9	12C2	101	<b>1889</b>
16.5/6.6/1.6	884.7/1967	16C2	121	<b>2245</b>
13.9/5.6/1.4	1052/2341	16C2	144	<b>2357</b>
12.4/4.9/1.2	1111/2474	16C2	162	<b>2357</b>
10.4/6/1.04	1317/2278	16C2	192	<b>2357</b>
8.3/4.8/8	1560/2673	16C2	240	<b>2433</b>
6.9/4/7	1844/3047	16C2	288	<b>2433</b>

\*3450 RPM Motor

(1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

**Motor Options:** See modifications page M2-50 for  
description of enclosures.

Item	List Addition
SXTF	<b>\$160</b>
Easy Clean EZFC	<b>\$185</b>
Explosion Proof XPFC (2)	<b>\$215</b>
Energy Efficient SXE	<b>\$235</b>

## Standard Modifications

Shaft Input (unit supplied less motor)

**\$183** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for

additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

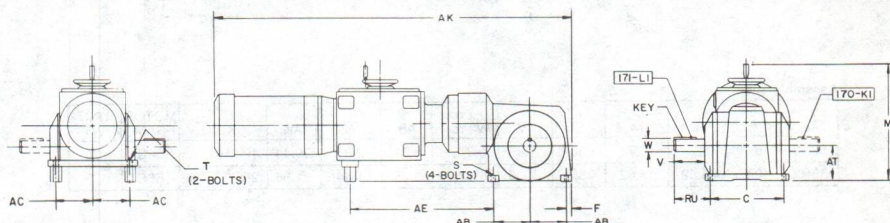
ERC without pushbutton **\$683** list addition

DAC with meter **\$1650** list addition

DAC without meter **\$1162** list addition

(2) CL. I GP. D, CL. II GP. F & G

## MASTER Right Angle Worm Gear Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W + .0000 - .0005	AB	AC	AE
12W2	4.00	.50	10.81	.31	.38	1.69	.750	2.12	2.88	10.66
16W2	4.50	.44	11.56	.38	.38	2.00	.875	3.00	2.88	10.62

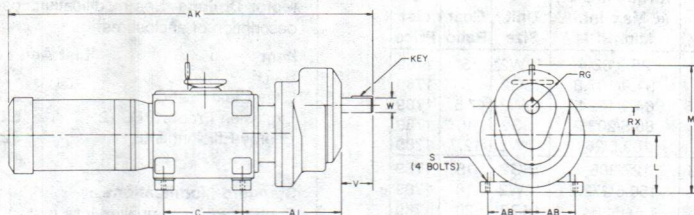
  

SIZE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
12W2	27.62	2.25	2.00	.19x.19x1.00	56C	86
16W2	29.24	2.50	2.31	.19x.19x1.25	56C	100



# 3/4 HP Parallel — Complete Assemblies

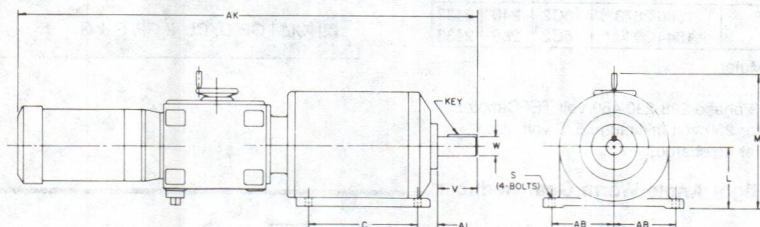
## Single Stage REEVES Gear Reducer



Assembly 104

SIZE	C	L	M	S	V	W <sup>+ .0000 - .0005</sup>	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
01R2	3.15	3.75	10.75	.38	1.63	.750	2.88	6.03	23.25	1.50	.19x.19x1.00	56C	60

## Double and Triple Stage REEVES Gear Reducer



Assembly 105

SIZE	C	L	M	S	V	W <sup>+ .0000 - .0005</sup>	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
02R2	6.12	3.75	10.75	.38	1.88	.875	3.31	2.81	29.44	.19x.19x1.25	56C	70
13R2	10.25	4.62	11.62	.50	2.38	1.125	3.75	1.44	31.56	.25x.25x1.56	56C	75

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 3/4 HP Parallel Ratings\*

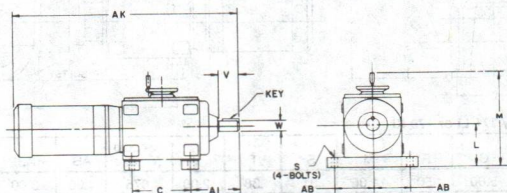
## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/1340/400	10.8/25.9	0002	—	1280
2601/1089/325.2	12.9/30.9	01R2	1.23	1280
2133/893/266.7	15.8/37.6	01R2	1.50	1280
1739/728.3/217.4	19.3/46.2	01R2	1.84	1280
1422/595.6/177.8	23.6/56.5	01R2	2.25	1280
1159/485.5/144.9	29/69.3	01R2	2.76	1280
946.7/396.4/118.3	35.5/84.8	01R2	3.38	1280
774.8/324.5/96.9	43.4/103.6	01R2	4.13	1409
632.4/264.8/79.1	53.2/127	01R2	5.06	1421
516.1/216.1/64.5	65.2/155.6	01R2	6.20	1453
421.6/176.5/52.7	78.1/186.5	02R2	7.59	1462
344.1/144.1/43	95.7/228.6	02R2	9.30	1474
280.7/117.5/35.1	117.3/280.2	02R2	11.4	1497
228.6/95.7/28.6	144.1/344.1	02R2	14.0	1562
187.1/78.4/23.4	176/420.2	02R2	17.1	1636
153.1/64.1/19.1	215.1/513.6	02R2	20.9	1648
125/52.3/15.6	263.4/629.1	02R2	25.6	1692
101.9/42.7/12.7	323.1/771.7	02R2	31.4	1703
72.7/30.5/9.1	443.3/961.7	13R2	44	1756
64/26.8/8	503.7/948.2	13R2	50	1821
56.1/23.5/7	574.2/765.6	13R2	57	1854
45.1/18.9/5.6	715.3/789.3	13R2	71	1874
38.1/16/4.8	846.2/873.5	13R2	84	1874
34.8/14.6/4.3	926.8/1853	13R2	92	1937

\*All motors 3450 rpm.

- (1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

## Shaft Output



Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0002	3.15	3.38	10.42	.38	1.88	.625	2.88	3.44	18.81	.19x.19	56C	47

## Accessories

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	\$160
Easy Clean EZFC	\$185
Explosion Proof XPFC (2)	\$240
Energy Efficient SXE	\$288

### Standard Modifications

Shaft Input (unit supplied less motor)

\$183 list deduction

Digital Tachometer —

w/panel mount meter \$1019 list addition

w/bench mount meter \$1111 list addition

Refer to modifications page M2-51 for additional information on digital tachometers.

ERC with pushbutton \$728 list addition

ERC without pushbutton \$683 list addition

DAC with meter \$1650 list addition

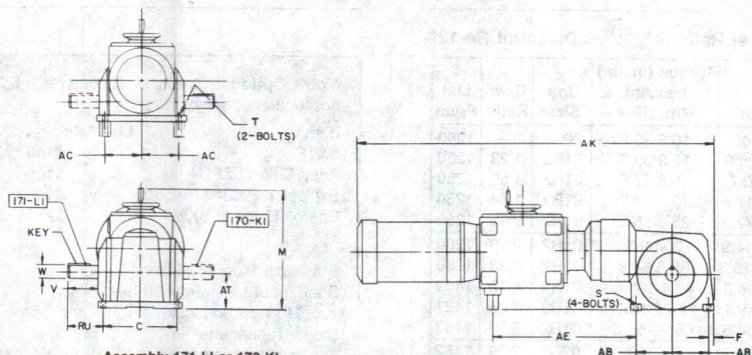
DAC without meter \$1162 list addition

(2) CL. I GP. D, CL. II GP. F & G



# 3/4 HP Right Angle — Complete Assemblies

## MASTER Right Angle Worm Gear Reducer



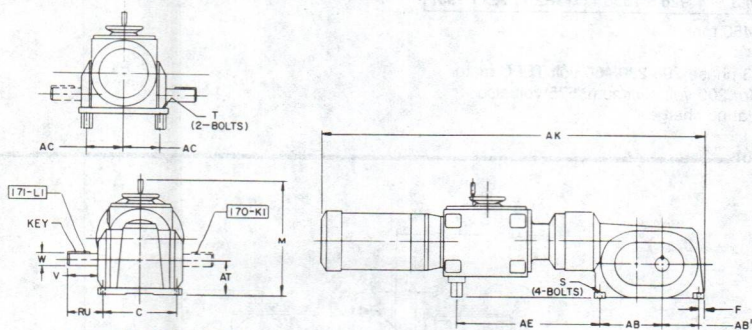
Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W <sup>+.0000</sup> <sub>-.0005</sub>	AB	AC
12W2	4.00	.50	10.81	.31	.38	1.69	.750	2.12	2.88
16W2	4.50	.44	11.56	.38	.38	2.00	.875	3.00	2.88
21W2	7.00	.50	13.06	.38	.38	2.50	1.125	3.50	2.88

SIZE	AE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
12W2	10.66	27.62	2.25	2.00	.19x.19x1.00	56C	86
16W2	10.62	29.24	2.50	2.31	.19x.19x1.25	56C	100
21W2	10.81	30.56	3.38	2.50	.25x.25x1.75	56C	119

## MASTER Combination Right Angle Gear Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W <sup>+.0000</sup> <sub>-.0005</sub>	AB	AB'	AC
12C2	5.00	.50	11.06	.31	.38	2.00	.875	4.00	3.00	2.88
16C2	6.50	.50	12.06	.38	.38	2.50	1.125	5.50	3.50	2.88

SIZE	AE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
12C2	10.81	30.50	2.50	2.62	.19x.19x1.25	56C	88
16C2	10.69	32.50	3.00	2.88	.25x.25x1.75	56C	115

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## ¾ HP Right Angle Ratings\* Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
640/290/80	42.6/99.9	12W2	5	1915
426.7/193.3/53.3	63.2/144.6	12W2	7.5	1915
320/145/40	83.3/189	12W2	10	1915
252/114.2/31.5	104.6/244.8	12W2	12.7	1915
213.3/96.7/26.7	123.3/279.2	12W2	15	1915
177.8/80.6/22.2	146.3/331	12W2	18	1915
160/72.5/20	158.2/345.7	12W2	20	1915
128/58/16	197.8/437.6	12W2	25	1915
106.7/58.3/13.3	281.5/407.6	16W2	30	1915
80/43.8/10	355.6/506.7	16W2	40	1962
64/35/8	434.7/596.7	16W2	50	1962
53.3/29.2/6.7	536.8/738.1	21W2	60	1962
45.7/25/5.7	728/1058	12C2	70	1962
37.2/29.1/4.7	859.4/859.4	12C2	86	2030
31.7/14.4/4	1018/1741	16C2	101	2030
26.5/12/3.3	1090/1864	16C2	121	2042
22.2/10.1/2.8	1298/2219	16C2	144	2145
19.8/9/2.5	1384/2356	16C2	162	2145
16.7/7.6/2.1	1640/2793	16C2	192	2145
13.3/6/1.7	2003/3278	16C2	240	2419
11.1/6.1/1.4	2300/3212	16C2	288	2419

\*All motors 3450 RPM

- (1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

# Accessories

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	\$160
Easy Clean EZFC	\$185
Explosion Proof XPFC (2)	\$240
Energy Efficient SXE	\$288

## Standard Modifications

Shaft Input (unit supplied less motor)

\$183 list deduction

Digital Tachometer —

w/panel mount meter \$1019 list addition

w/bench mount meter \$1111 list addition

Refer to modifications page M2-51 for  
additional information on digital tachometers.

ERC with pushbutton \$728 list addition

ERC without pushbutton \$683 list addition

DAC with meter \$1650 list addition

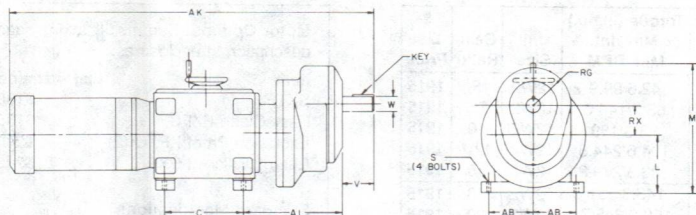
DAC without meter \$1162 list addition

(2) CL. I GP. D, CL. II GP. F & G



# 1 HP Parallel — Complete Assemblies

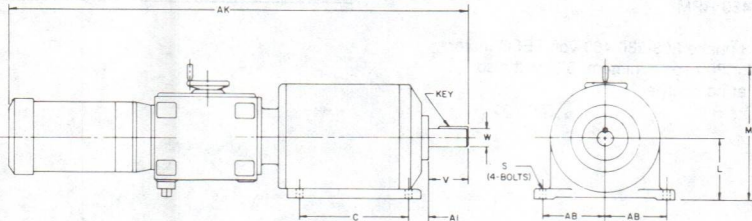
## Single Stage REEVES Gear Reducer



Assembly 104

SIZE	C	L	M	S	V	W <sup>+ .0000</sup> - .0005	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
21R3	6.88	5.00	12.50	.50	2.88	1.375	3.38	8.81	30.81	2.75	.31x.31x2.00	56C	125
21R3	6.88	5.00	12.50	.50	2.88	1.375	3.38	8.81	30.69	2.75	.31x.31x2.00	143TC	125
21R3	6.88	5.00	12.50	.50	2.88	1.375	3.38	8.81	32.12	2.75	.31x.31x2.00	145TC	125

## Double and Triple Stage REEVES Gear Reducer



Assembly 105

SIZE	C	L	M	S	V	W <sup>+ .0000</sup> - .0005	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
12R3	10.25	4.62	12.12	.50	2.38	1.125	3.75	1.44	36.00	.25x.25x1.56	56C	115
12R3	10.25	4.62	12.12	.50	2.38	1.125	3.75	1.44	35.88	.25x.25x1.56	143TC	115
12R3	10.25	4.62	12.12	.50	2.38	1.125	3.75	1.44	37.31	.25x.25x1.56	145TC	115
22R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.19	.38x.38x2.69	56C	140
22R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.07	.38x.38x2.69	143TC	140
22R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	40.50	.38x.38x2.69	145TC	140
23R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.19	.38x.38x2.69	56C	145
23R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.07	.38x.38x2.69	143TC	145
23R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	40.50	.38x.38x2.69	145TC	145

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 1 HP Parallel Ratings

## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/1750/400	17.1/31.3	0003*	—	1324
2601/1422/325.2	20.4/37.4	21R3*	1.23	1324
2133/1166/267.7	24.9/45.6	21R3*	1.50	1324
2000/1050/200	27.4/52.2	0003	—	1324
1739/951.1/217.4	30.6/55.9	21R3*	1.84	1324
1626/853.7/162.6	32.7/62.3	21R3	1.23	1324
1333/700/133.3	39.9/76	21R3	1.50	1324
1087/570.7/108.7	48.9/93.2	21R3	1.84	1324
888.9/466.7/88.9	59.8/114	21R3	2.25	1324
724.6/380.4/72.5	73.4/139.8	21R3	2.76	1348
591.7/310.7/59.2	89.9/171.2	21R3	3.38	1462
484.3/254.2/48.4	109.8/209.2	21R3	4.13	1505
395.3/207.5/39.5	134.6/256.3	21R3	5.06	1525
322.6/169.4/32.3	164.9/235.5	21R3	6.20	1548
238.4/125.1/23.8	218.5/416.2	12R3	8.39	1600
206.2/108.2/20.6	252.6/481.2	12R3	9.70	1620
157.5/82.7/15.7	330.8/472.5	12R3	12.7	1685
138.9/72.9/13.9	375.1/545.5	12R3	14.4	1717
112.4/59/11.2	463.6/545.4	12R3	17.8	1748
94.3/77/9.4	552.2/683	12R3	21.2	1768
78.7/41.3/7.9	661.6/1260	22R3	25.4	1811
63.7/33.4/6.4	817.8/1557	22R3	31.4	1874
52.1/27.3/5.2	979.1/1864	23R3	38.4	1925
42.5/22.3/4.2	1200/2287	23R3	47.1	1980
35/18.4/3.5	1455/2773	23R3	57.1	2042
28.3/14.9/2.8	1800/2769	23R3	70.6	2125
23.1/12.1/2.3	2205/2800	23R3	86.5	2188

# Accessories

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	\$235
Easy Clean EZFC	\$300
Explosion Proof XPFC (2)	\$465
Energy Efficient SXE	\$400

## Standard Modifications

Shaft Input (unit supplied less motor)

\$224 list deduction

Digital Tachometer —

w/panel mount meter \$1019 list addition

w/bench mount meter \$1111 list addition

Refer to modifications page M2-51 for additional information on digital tachometers.

ERC with pushbutton \$728 list addition

ERC without pushbutton \$683 list addition

DAC with meter \$1768 list addition

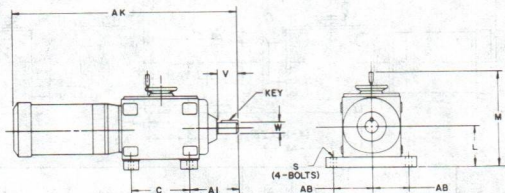
DAC without meter \$1280 list addition

(2) CL. I GP. D, CL. II GP. F & G

\*3450 RPM Motor

- (1) Includes 3 phase 208-230/460 volt TEFC motor. Suitable for 200 volt minimum. 575 volt also available at no charge.

# Shaft Output



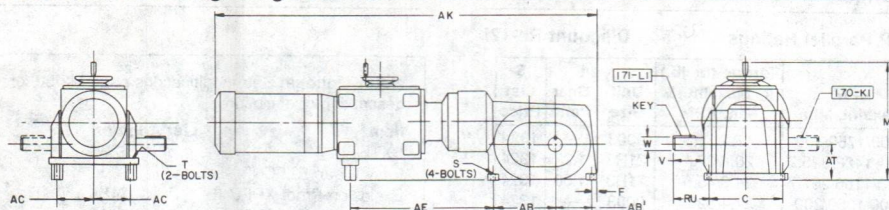
Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0003	6.88	4.38	11.91	.50	2.00	.875	3.38	5.38	24.44	.19x.19	56C	79
0003	6.88	4.38	11.91	.50	2.00	.875	3.38	5.38	24.32	.19x.19	143TC	79
0003	6.88	4.38	11.91	.50	2.00	.875	3.38	5.38	25.75	.19x.19	145TC	79



# 1 HP Right Angle — Complete Assemblies

## MASTER Combination Right Angle Gear Reducer

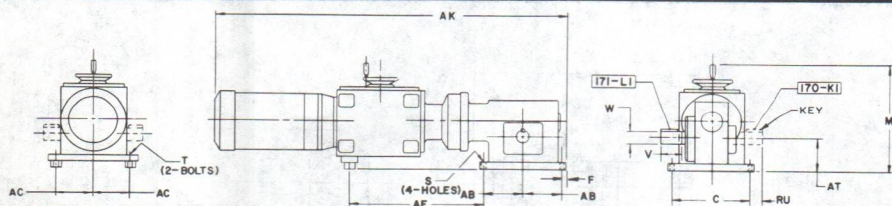


Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W - .0005	AB	AB <sup>1</sup>	AC	AE	AK
16C3	6.50	.50	12.50	.38	.50	2.50	1.125	5.50	3.50	3.38	15.75	37.31
16C3	6.50	.50	12.50	.38	.50	2.50	1.125	5.50	3.50	3.38	15.75	37.19
16C3	6.50	.50	12.50	.38	.50	2.50	1.125	5.50	3.50	3.38	15.75	38.62
21C3	8.00	.62	14.12	.50	.50	3.25	1.500	7.00	4.00	3.38	15.88	39.57
21C3	8.00	.62	14.12	.50	.50	3.25	1.500	7.00	4.00	3.38	15.88	39.45
21C3	8.00	.62	14.12	.50	.50	3.25	1.500	7.00	4.00	3.38	15.88	40.88
28C3	9.00	1.06	16.12	.62	.50	4.56	2.125	9.06	4.94	3.38	16.56	43.69
28C3	9.00	1.06	16.12	.62	.50	4.56	2.125	9.06	4.94	3.38	16.56	43.57
28C3	9.00	1.06	16.12	.62	.50	4.56	2.125	9.06	4.94	3.38	16.56	45.00

SIZE	AT	RU	KEY	MOTOR FRAME	UNIT WT.
16C3	3.00	2.88	.25x.25x1.75	56C	146
16C3	3.00	2.88	.25x.25x1.75	143TC	146
16C3	3.00	2.88	.25x.25x1.75	145TC	146
21C3	4.00	4.00	.38x.38x2.50	56C	196
21C3	4.00	4.00	.38x.38x2.50	143TC	196
21C3	4.00	4.00	.38x.38x2.50	145TC	196
28C3	5.12	6.06	.50x.50x3.50	56C	300
28C3	5.12	6.06	.50x.50x3.50	143TC	300
28C3	5.12	6.06	.50x.50x3.50	145TC	300

## DODGE TIGEAR Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W	AB	AC	AE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
17G3	4.50	.59	12.06	.44	.50	1.62	.875	2.88	3.38	14.00	32.44	2.75	2.09	.19x.19x1.00	56C	117
17G3	4.50	.59	12.06	.44	.50	1.62	.875	2.88	3.38	14.00	33.75	2.75	2.09	.19x.19x1.00	143TC	117
20G3	4.69	.44	12.56	.50	.50	2.00	1.000	3.19	3.38	13.75	32.63	3.00	2.38	.25x.25x1.25	56C	120
20G3	4.69	.44	12.56	.50	.50	2.00	1.000	3.19	3.38	13.75	33.94	3.00	2.38	.25x.25x1.25	143TC	120
26G3	5.25	.62	13.84	.56	.50	2.44	1.125	4.00	3.38	13.66	34.38	3.69	3.00	.25x.25x1.25	56C	140
26G3	5.25	.62	13.84	.56	.50	2.44	1.125	4.00	3.38	13.66	35.69	3.69	3.00	.25x.25x1.25	143TC	140

For complete dimensions and optional assemblies refer to dimension section.

## Ratings<sup>(1)</sup>

### 1 HP Right Angle Ratings

### Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
640/350/80	85.3/135.6	16W3*	5	2121
400/232/40	116.9/203	17G3	5	2121
266.67/154.7/26.7	173.4/304.3	16W3	7.5	2121
200/116/20	229/394.5	17G3	10	2121
157.5/91.3/15.8	283.9/486.6	16W3	12.7	2121
133.3/96.7/13.3	330.8/450.6	17G3	15	2121
111.1/64.4/11.1	385.8/656.9	16W3	18	2121
100/72.5/10	413.3/567.9	17G3	20	2189
80/70/8	542.5/620	20G3	25	2189
66.7/38.7/6.7	614.6/1038	26G3	30	2189
50/29/5	757.9/1021	26G3	40	2189
40/23.2/4	898.7/1015	26G3	50	2386
33.3/19.3/3.3	1288/2207	16C3	60	2386
28.6/16.6/2.9	1488/2514	16C3	70	2386
23.3/13.5/2.3	1769/3014	16C3	86	2386
19.8/11.5/2	2078/3540	21C3	101	2386
16.5/9.6/1.7	2380/4023	21C3	121	2510
13.9/8/1.4	2832/4788	21C3	144	2842
12.3/7.2/1.2	2946/4881	21C3	162	2842
10.4/6/1	3492/5672	21C3	192	2966
8.3/6/8	4126/5595	28C3	240	2966

\*3450 RPM Motor

- (1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

## MASTER Right Angle Worm Gear Reducer

## Accessories

**Motor Options:** See modifications page M2-50  
for description of enclosures.

Item	List Addition
SXTF	\$235
Easy Clean EZFC	\$300
Explosion Proof XPFC (2)	\$465
Energy Efficient SXE	\$400

### Standard Modifications

Shaft Input (unit supplied less motor)

**\$224** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for  
additional information on digital tachometers.

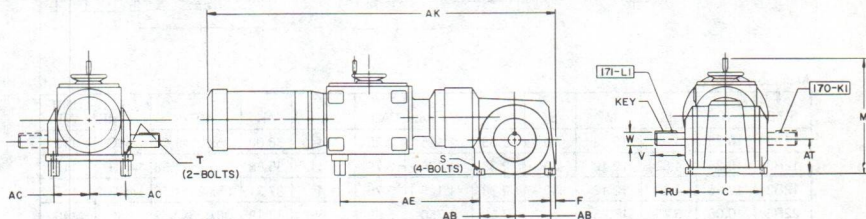
ERC with pushbutton **\$728** list addition

ERC without pushbutton **\$683** list addition

DAC with meter **\$1768** list addition

DAC without meter **\$1280** list addition

(2) CL. I GP. D, CL. II GP. F & G



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W - .0005	AB	AC	AE	AK
16W3	4.50	.44	12.00	.38	.50	2.00	.875	3.00	3.38	15.62	34.13
16W3	4.50	.44	12.00	.38	.50	2.00	.875	3.00	3.38	15.62	34.01
16W3	4.50	.44	12.00	.38	.50	2.00	.875	3.00	3.38	15.62	35.44

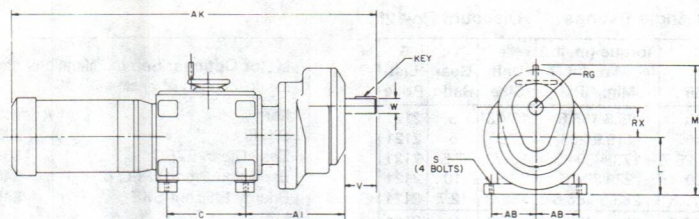
  

SIZE	AT	RU	KEY	MOTOR FRAME	UNIT WT.
16W3	2.50	2.31	.19x.19x1.25	56C	127
16W3	2.50	2.31	.19x.19x1.25	143TC	127
16W3	2.50	2.31	.19x.19x1.25	145TC	127



# 1½ HP Parallel — Complete Assemblies

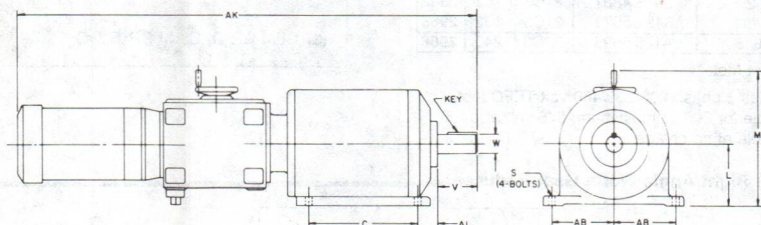
## Single Stage REEVES Gear Reducer



Assembly 104

SIZE	C	L	M	S	V	W + .0000 - .0005	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
21R3	6.88	5.00	12.50	.50	2.88	1.375	3.38	8.81	30.81	2.75	.31x.31x2.00	56C	125
21R3	6.88	5.00	12.50	.50	2.88	1.375	3.38	8.81	30.69	2.75	.31x.31x2.00	143TC	125
21R3	6.88	5.00	12.50	.50	2.88	1.375	3.38	8.81	32.12	2.75	.31x.31x2.00	145TC	125

## Double and Triple Stage REEVES Gear Reducer



Assembly 105

SIZE	C	L	M	S	V	W + .0000 - .0005	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
12R3	10.25	4.62	12.12	.50	2.38	1.125	3.75	1.44	36.00	.25x.25x1.56	56C	115
12R3	10.25	4.62	12.12	.50	2.38	1.125	3.75	1.44	35.88	.25x.25x1.56	143TC	115
12R3	10.25	4.62	12.12	.50	2.38	1.125	3.75	1.44	37.31	.25x.25x1.56	145TC	115
22R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.19	.38x.38x2.69	56C	140
22R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.07	.38x.38x2.69	143TC	140
22R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	40.50	.38x.38x2.69	145TC	140
23R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.19	.38x.38x2.69	56C	145
23R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	39.07	.38x.38x2.69	143TC	145
23R3	10.06	5.75	13.25	.50	3.62	1.750	5.69	1.69	40.50	.38x.38x2.69	145TC	145

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

# Accessories

## 1½ HP Parallel Ratings\*

## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/2550/400	25.6/32.1	0003	—	<b>1518</b>
2601/2073/325.2	30.6/38.3	21R3	1.23	<b>1831</b>
2133/1700/266.7	37.3/46.8	21R3	1.50	<b>1831</b>
1739/1385/217.4	45.7/57.4	21R3	1.84	<b>1831</b>
1422/1133/177.8	55.9/70.1	21R3	2.25	<b>1831</b>
1159/923.9/144.9	68.6/86	21R3	2.76	<b>1831</b>
946.7/754.4/118.3	83.9/105.3	21R3	3.38	<b>1854</b>
774.8/617.4/96.9	102.6/128.7	21R3	4.13	<b>1894</b>
632.4/504/79.1	125.7/157.7	21R3	5.06	<b>1917</b>
516.1/411.3/64.5	154/193.2	21R3	6.20	<b>1948</b>
381.4/303.9/47.7	204.1/256.1	12R3	8.39	<b>2000</b>
329.9/262.9/41.2	235.9/296.1	12R3	9.70	<b>2062</b>
252/200.8/31.5	308.9/387.7	12R3	12.7	<b>2137</b>
222.2/177.1/27.8	350.3/439.5	12R3	14.4	<b>2168</b>
179.8/143.3/22.5	433/543.3	12R3	17.8	<b>2211</b>
153.1/122/19.1	508.4/638	22R3	20.9	<b>2231</b>
126/100.4/15.7	617.8/775.3	22R3	25.4	<b>2262</b>
101.9/81.2/12.7	763.8/958.5	22R3	31.4	<b>2305</b>
83.3/66.4/10.4	914.4/1147	23R3	38.4	<b>2380</b>
67.9/54.1/8.5	1121/1407	23R3	47.1	<b>2557</b>
56/44.7/7	1359/1706	23R3	57.1	<b>2591</b>
45.3/36.1/5.7	1681/2109	23R3	70.6	<b>2694</b>
37/29.5/4.6	2059/2584	23R3	86.5	<b>2717</b>
30.2/24.1/3.8	2524/2524	23R3	106	<b>2788</b>

\*All motors 3450 RPM

- (1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

**Motor Options:** See modifications page M2-50 for  
description of enclosures.

Item	List Addition
SXTF	<b>\$255</b>
Easy Clean EZFC	<b>\$320</b>
Explosion Proof XPFC (2)	<b>\$478</b>
Energy Efficient SXE	<b>\$420</b>

## Standard Modifications

Shaft Input (unit supplied less motor)

**\$234** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for  
additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

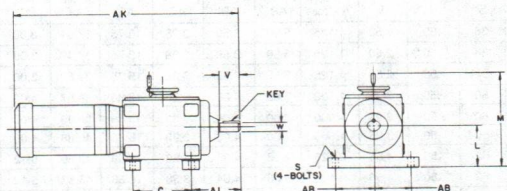
ERC without pushbutton **\$683** list addition

DAC with meter **\$1768** list addition

DAC without meter **\$1280** list addition

(2) CL. I GP. D, CL. II GP. F & G

## Shaft Output



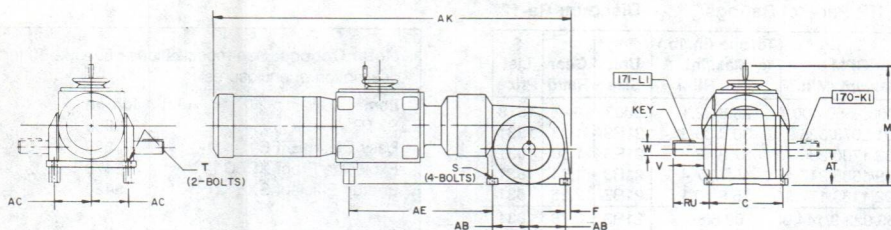
Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0003	6.88	4.38	11.91	.50	2.00	.875	3.38	5.38	24.44	.19x.19	56C	79
0003	6.88	4.38	11.91	.50	2.00	.875	3.38	5.38	24.32	.19x.19	143TC	83
0003	6.88	4.38	11.91	.50	2.00	.875	3.38	5.38	25.75	.19x.19	145TC	79



# 1½ HP Right Angle — Complete Assemblies

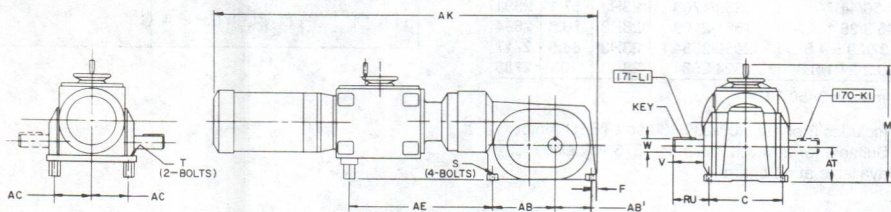
## MASTER Right Angle Worm Gear Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W - .0000 W - .0005	AB	AC	AE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
16W3	4.50	.44	12.00	.38	.50	2.00	.875	3.00	3.38	15.62	34.13	2.50	2.31	.19x.19x1.25	56C	127
16W3	4.50	.44	12.00	.38	.50	2.00	.875	3.00	3.38	15.62	34.01	2.50	2.31	.19x.19x1.25	143TC	131
16W3	4.50	.44	12.00	.38	.50	2.00	.875	3.00	3.38	15.62	35.44	2.50	2.31	.19x.19x1.25	145TC	127
21W3	7.00	.50	13.50	.38	.50	2.50	1.125	3.50	3.38	15.88	35.44	3.38	2.50	.25x.25x1.75	56C	154
21W3	7.00	.50	13.50	.38	.50	2.50	1.125	3.50	3.38	15.88	35.32	3.38	2.50	.25x.25x1.75	143TC	154
21W3	7.00	.50	13.50	.38	.50	2.50	1.125	3.50	3.38	15.88	36.75	3.38	2.50	.25x.25x1.75	145TC	154

## MASTER Combination Right Angle Gear Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W - .0000 W - .0005	AB	AB'	AC	AE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
16C3	6.50	.50	12.50	.38	.50	2.50	1.125	5.50	3.50	3.38	15.75	37.31	3.00	2.88	.25x.25x1.75	56C	146
16C3	6.50	.50	12.50	.38	.50	2.50	1.125	5.50	3.50	3.38	15.75	37.19	3.00	2.88	.25x.25x1.75	143TC	150
16C3	6.50	.50	12.50	.38	.50	2.50	1.125	5.50	3.50	3.38	15.75	38.62	3.00	2.88	.25x.25x1.75	145TC	146
21C3	8.00	.62	14.12	.50	.50	3.25	1.500	7.00	4.00	3.38	15.88	39.57	4.00	4.00	.38x.38x2.50	56C	196
21C3	8.00	.62	14.12	.50	.50	3.25	1.500	7.00	4.00	3.38	15.88	39.45	4.00	4.00	.38x.38x2.50	143TC	200
21C3	8.00	.62	14.12	.50	.50	3.25	1.500	7.00	4.00	3.38	15.88	40.88	4.00	4.00	.38x.38x2.50	145TC	196
28C3	9.00	1.06	16.12	.62	.50	4.56	2.125	9.06	4.94	3.38	16.56	43.69	5.12	6.06	.50x.50x3.50	56C	300
28C3	9.00	1.06	16.12	.62	.50	4.56	2.125	9.06	4.94	3.38	16.56	43.57	5.12	6.06	.50x.50x3.00	143TC	304
28C3	9.00	1.06	16.12	.62	.50	4.56	2.125	9.06	4.94	3.38	16.56	45.00	5.12	6.06	.50x.50x3.50	145TC	300

For complete dimensions and optional assemblies refer to dimension section.

## 1½ HP Right Angle Ratings\* Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
640/500/80	110.1/143.3	16W3	5	<b>2395</b>
426.7/333.3/53.3	163.9/212.1	16W3	7.5	<b>2395</b>
320/250/40	216.2/279.8	16W3	10	<b>2395</b>
252/196.9/31.5	268.5/347.5	16W3	12.7	<b>2395</b>
213.3/166.7/26.7	315.7/404.5	16W3	15	<b>2395</b>
177.8/138.9/22.2	370.3/474.2	16W3	18	<b>2395</b>
160/125/20	410/525	16W3	20	<b>2395</b>
128/100/16	538.4/658.7	21W3	25	<b>2395</b>
106.7/83.3/13.3	638.4/759.3	21W3	30	<b>2395</b>
80/62.5/10	851.2/937.4	21W3	40	<b>2554</b>
64/50/8	1035/1339	16C3	50	<b>2554</b>
53.3/41.7/6.7	1218/1576	16C3	60	<b>2554</b>
45.7/35.7/5.7	1416/1813	16C3	70	<b>2554</b>
37.2/29.1/4.7	1699/2176	16C3	86	<b>2713</b>
31.7/24.8/4	1987/2555	21C3	101	<b>2713</b>
26.5/20.7/3.3	2281/2942	21C3	121	<b>2713</b>
22.2/17.4/2.8	2715/3501	21C3	144	<b>2713</b>
19.8/15.4/2.5	2767/3594	28C3	162	<b>3125</b>
16.7/13/2.1	3280/4260	28C3	192	<b>3125</b>
13.3/10.4/1.7	3974/5156	28C3	240	<b>3125</b>

\*All motors 3450 RPM

(1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

**Motor Options:** See modifications page M2-50 for  
description of enclosures.

Item	List Addition
SXTF	<b>\$255</b>
Easy Clean EZFC	<b>\$320</b>
Explosion Proof XPFC (2)	<b>\$478</b>
Energy Efficient SXE	<b>\$420</b>

**Standard Modifications**

Shaft Input (unit supplied less motor)

**\$234** list deduction

Digital Tachometer —

w/panel mount meter **\$1019**, list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for  
additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

ERC without pushbutton **\$683** list addition

DAC with meter **\$1768** list addition

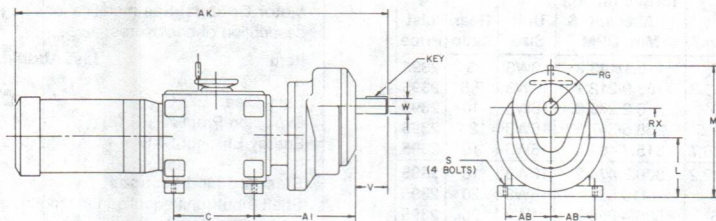
DAC without meter **\$1280** list addition

(2) CL. I GP. D, CL. II GP. F & G



## 2 HP Parallel — Complete Assemblies

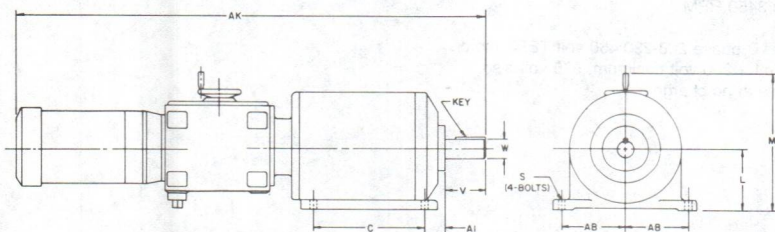
### Single Stage REEVES Gear Reducer



**Assembly 104**

SIZE	C	L	M	S	V	$\begin{smallmatrix} +.0000 \\ W-.0005 \end{smallmatrix}$	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
21R4	7.69	5.38	14.50	.50	2.88	1.375	4.03	9.03	33.19	2.75	.31x.31x2.00	145TC	165

### Double and Triple Stage REEVES Gear Reducer



**Assembly 105**

SIZE	C	L	M	S	V	$\begin{smallmatrix} +.0000 \\ W-.0005 \end{smallmatrix}$	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
22R4	10.06	5.75	14.82	.50	3.62	1.750	5.69	1.69	41.50	.38x.38x2.69	145TC	185
33R4	12.38	6.62	15.69	.62	4.38	2.125	6.81	1.44	42.38	.50x.50x3.38	145TC	255

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 2 HP Parallel Ratings

## Discount Re-12f

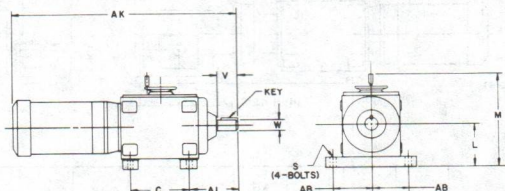
RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/2300/400	35.5/49.3	0004*	—	1898
2601/1869/325.2	42.3/58.9	21R4*	1.23	2031
2133/1533/267.7	51.6/71.8	21R4*	1.50	2031
2000/1250/200	56.7/90.8	0004	—	1898
1739/1250/217.4	63.3/88	21R4*	1.84	2031
1626/1016/162.6	67.7/108.3	21R4	1.23	2031
1333/833.3/133.3	82.5/132	21R4	1.50	2031
1087/679.4/108.7	101.2/162	21R4	1.84	2031
888.9/555.6/88.9	123.8/198	21R4	2.25	2105
724.6/452.9/72.5	151.9/243	21R4	2.76	2137
591.7/369.8/59.2	186/297.6	21R4	3.38	2231
484.3/302.7/48.4	227.2/363.6	21R4	4.13	2274
395.3/247/39.5	278.4/445.5	21R4	5.06	2317
322.6/201.6/32.3	341.1/545.8	21R4	6.20	2337
263.2/164.5/26.3	409.5/655.3	22R4	7.60	2357
215/134.4/21.5	501.1/801.8	22R4	9.30	2422
175.4/109.7/17.5	614.3/982.9	22R4	11.4	2442
142.9/89.3/14.3	754.4/1207	22R4	14.0	2505
117/73.1/11.7	921.5/1474	22R4	17.1	2525
95.7/59.8/9.6	1126/1801	22R4	20.9	2591
78.1/48.8/7.8	1379/2207	22R4	25.6	2654
63.7/39.8/6.4	1692/1967	22R4	31.4	2694
52/32.6/5.2	2025/3241	33R4	38.4	2757
42.5/26.5/4.3	2484/3975	33R4	47.1	2800
34.7/21.7/3.5	3043/4870	33R4	57.7	2905
28.3/17.7/2.8	3724/5417	33R4	70.6	3011
23.1/14.5/2.3	4563/5368	33R4	86.5	3242

\*3450 RPM Motor

(1) Includes 3 phase 208-230/460 volt TEFC motor.

Suitable for 200 volt minimum. 575 volt also available at no charge.

## Shaft Output



Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0004	7.69	5.12	14.19	.50	2.00	.875	4.03	5.94	27.12	.19x.19	145TC	130

## Accessories

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	\$340
Easy Clean EZFC	\$400
Explosion Proof XPFC (2)	\$478
Energy Efficient SXE	\$430

### Standard Modifications

Shaft Input (unit supplied less motor)

\$234 list deduction

Digital Tachometer —

w/panel mount meter \$1019 list addition

w/bench mount meter \$1111 list addition

Refer to modifications page M2-51 for additional information on digital tachometers.

ERC with pushbutton \$728 list addition

ERC without pushbutton \$683 list addition

DAC with meter \$1847 list addition

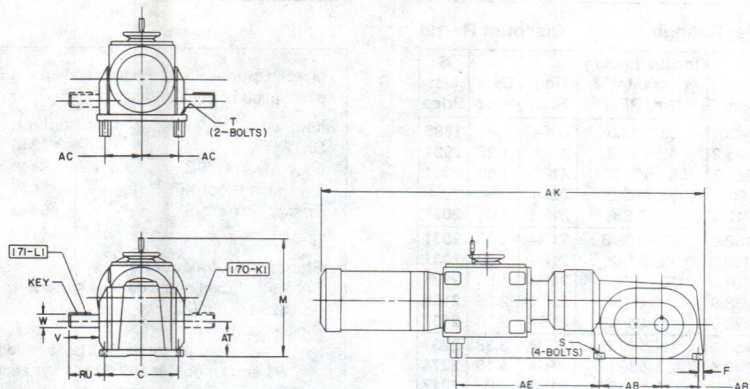
DAC without meter \$1359 list addition

(2) CL. I GP. D, CL. II GP. F & G



# 2 HP Right Angle — Complete Assemblies

## MASTER Combination Gear Reducer



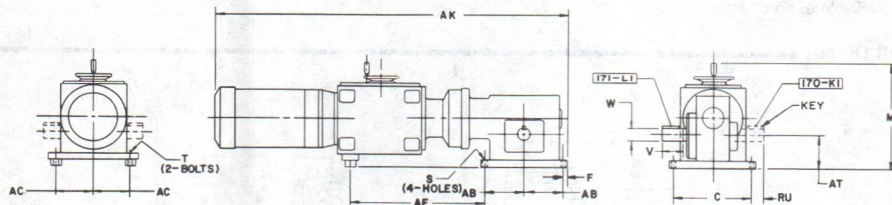
Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	$\begin{smallmatrix} +.0000 \\ W-.0005 \end{smallmatrix}$	AB	AB'	AC	AE	AK
16C4	6.50	.50	14.06	.38	.50	2.50	1.125	5.50	3.50	4.03	16.84	39.81
21C4	8.00	.62	15.69	.50	.50	3.25	1.500	7.00	4.00	4.03	16.97	42.06
28C4	9.00	1.06	17.69	.62	.50	4.56	2.125	9.06	4.94	4.03	17.62	46.19
40C4	12.50	1.19	20.56	1.00	.50	5.50	2.625	11.88	6.62	4.03	21.88	55.06

SIZE	AT	RU	KEY	MOTOR FRAME	UNIT WT.
16C4	3.00	2.88	.25x.25x1.75	145TC	184
21C4	4.00	4.00	.38x.38x2.50	145TC	234
28C4	5.12	6.06	.50x.50x3.50	145TC	338
40C4	6.50	7.06	.62x.62x4.00	145TC	670

## DODGE TIGEAR Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W	AB	AC	AE	AK	AT	RU	KEY	MOTOR FRAME	UNIT WT.
26G4	5.25	.62	15.38	.56	.50	2.44	1.125	4.00	4.03	14.75	36.88	3.69	3.00	.25x.25x1.25	145TC	178

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 2 HP Right Angle Ratings Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
640/500/80	151/203.5	21W4*	5	2736
400/290/40	255.5/355.5	26G4	5	2736
266.7/166.7/26.7	376.6/518.9	21W4	7.5	2736
200/125/20	493.7/780.6	26G4	10	2736
157.5/114.2/15.8	628.6/859.4	21W4	12.7	2736
133.3/96.7/13.3	721.9/983.6	26G4	15	2736
111.1/—/11.1	866.2/1183	21W4	18	3057
100/72.5/10	951.5/1083	21W4	20	3057
80/58/8	1220/1680	16C4	25	3057
66.7/48.3/6.7	1437/1971	16C4	30	3057
55.6/40.3/5.6	1724/2366	16C4	36	3057
50/36.3/5	1886/2569	16C4	40	3057
40/29/4	2424/3248	21C4	50	3057
33.3/24.2/3.3	2852/3898	21C4	60	3057
28.6/20.7/2.9	3237/4422	21C4	70	3057
23.3/16.9/2.3	3977/5433	21C4	86	3057
19.8/14.4/2	4386/6048	28C4	101	3057
16.5/12/1.7	5134/6987	28C4	121	3466
14/10/1.4	6110/8316	28C4	144	3466
12.4/9/1.2	6285/8532	28C4	162	3466
10.4/7.6/1	7449/10112	28C4	192	4855
8.3/6/8	8983/12020	28C4	240	4855
6.9/5/7	9609/13155	40C4	288	5665

\*3450 RPM Motor

(1) Includes 3 phase 208-230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

# Accessories

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	\$340
Easy Clean EZFC	\$400
Explosion Proof XPFC (2)	\$478
Energy Efficient SXE	\$430

## Standard Modifications

Shaft Input (unit supplied less motor)

\$234 list deduction

Digital Tachometer —

w/panel mount meter \$1019 list addition

w/bench mount meter \$1111 list addition

Refer to modifications page M2-51 for additional information on digital tachometers.

ERC with pushbutton \$728 list addition

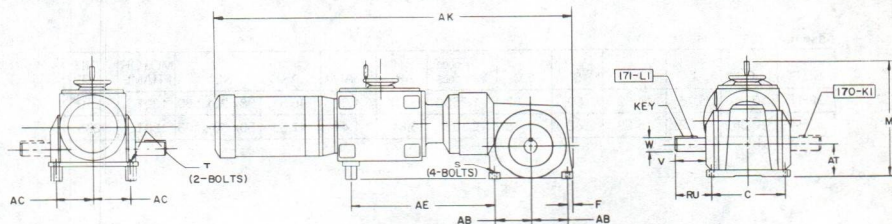
ERC without pushbutton \$683 list addition

DAC with meter \$1847 list addition

DAC without meter \$1359 list addition

(2) CL. I GP. D, CL. II GP. F & G

## MASTER Right Angle Worm Gear Reducer



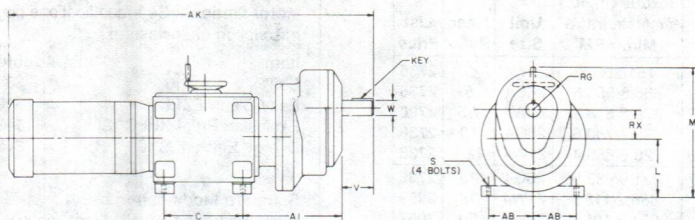
Assembly 171 LI or 170 KI

Assembly 171 L C 170 R											
SIZE	C	F	M	S	T	V	W - .0000 W - .0005	AB	AC	AE	AK
21W4	7.00	.50	15.06	.38	.50	2.50	1.125	3.50	4.03	16.94	38.00
SIZE	AT	RU	KEY	MOTOR FRAME	UNIT WT.						
21W4	3.38	2.50	.25x.25x1.75	145TC	188						



# 3 HP Parallel — Complete Assemblies

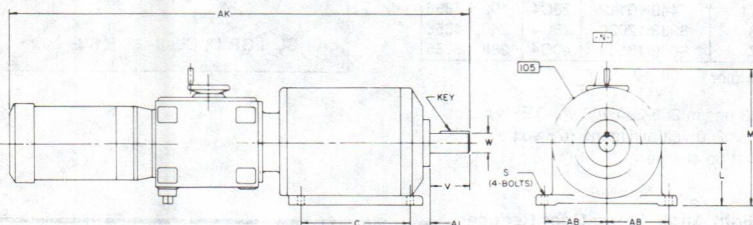
## Single Stage REEVES Gear Reducer



Assembly 104

SIZE	C	L	M	S	V	W <sup>+ .0000</sup> - .0005	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
21R4	7.69	5.38	14.50	.50	2.88	1.375	4.03	9.03	37.37	2.75	.31x.31x2.00	180TC	195

## Double and Triple Stage REEVES Gear Reducer



Assembly 105

SIZE	C	L	M	S	V	W <sup>+ .0000</sup> - .0005	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
22R4	10.06	5.75	14.82	.50	3.62	1.750	5.69	1.69	46.81	.38x.38x2.69	180TC	210
33R4	12.38	6.62	15.69	.62	4.38	2.125	6.81	1.44	47.63	.50x.50x3.38	180TC	285

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 3 HP Parallel Ratings\*

## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/3200/400	51.2/51.2	0004	—	<b>2363</b>
2601/2601/325.2	61.1/61.1	21R4	1.23	<b>2366</b>
2133/2133/266.7	74.5/74.5	21R4	1.50	<b>2366</b>
1739/1739/217.4	91.4/91.4	21R4	1.84	<b>2366</b>
1422/1422/177.8	111.8/111.8	21R4	2.25	<b>2366</b>
1159/1159/144.9	137.1/137.1	21R4	2.76	<b>2366</b>
946.8/946.8/118.3	167.9/167.9	21R4	3.38	<b>2439</b>
774.8/774.8/96.9	205.1/205.1	21R4	4.13	<b>2439</b>
632.4/632.4/79.1	251.3/251.3	21R4	5.06	<b>2527</b>
516.1/516.1/64.5	308/308	21R4	6.20	<b>2613</b>
421.1/421.1/52.6	369.7/369.7	22R4	7.60	<b>2657</b>
344.1/344.1/43	452.4/452.4	22R4	9.30	<b>2657</b>
280.7/280.7/35.1	554.6/554.6	22R4	11.4	<b>2701</b>
228.6/228.6/28.6	681.1/681.1	22R4	14.0	<b>2701</b>
187.1/187.1/23.4	831.9/831.9	22R4	17.1	<b>2778</b>
153.1/153.1/19.1	1016/1016	22R4	20.9	<b>2786</b>
125/125/15.6	1245/1245	22R4	25.6	<b>2851</b>
101.9/101.9/12.7	1527/1527	22R4	31.4	<b>2919</b>
83.3/83.3/10.4	1828/1828	33R4	38.4	<b>2939</b>
67.9/67.9/8.5	2243/2243	33R4	47.1	<b>3004</b>
55.5/55.5/6.9	2747/2747	33R4	57.7	<b>3090</b>
45.3/45.3/5.7	3362/3362	33R4	70.6	<b>3154</b>
37/37/4.6	4119/4119	33R4	86.5	<b>3263</b>
30.2/30.2/3.8	5048/5048	33R4	106	<b>3307</b>

\*All motors 3450 RPM

- (1) Includes 3 phase 230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

# Accessories

**Motor Options:** See modifications page M2-50 for  
description of enclosures.

Item	List Addition
SXTF	<b>\$425</b>
Easy Clean EZFC	<b>\$480</b>
Explosion Proof XPFC (2)	<b>\$580</b>
Energy Efficient SXE	<b>\$520</b>

## Standard Modifications

Shaft Input (unit supplied less motor)

**\$350** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for  
additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

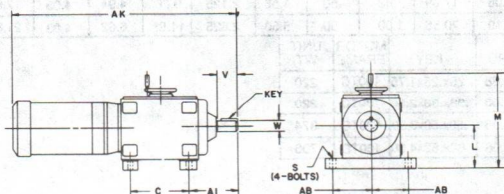
ERC without pushbutton **\$683** list addition

DAC with meter **\$1847** list addition

DAC without meter **\$1359** list addition

(2) CL. I GP. D, CL. II GP. F & G

# Shaft Output



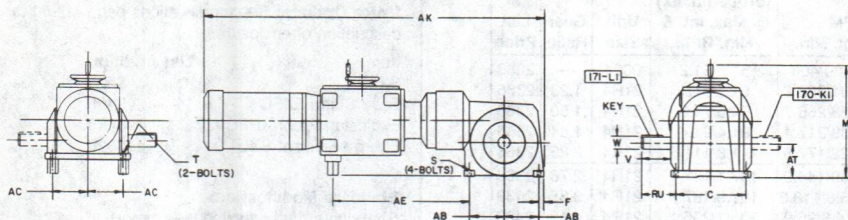
Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0004	7.69	5.12	14.19	.50	2.00	.875	4.03	5.94	32.75	.19x.19	180TC	186



## 3 HP Right Angle — Complete Assemblies

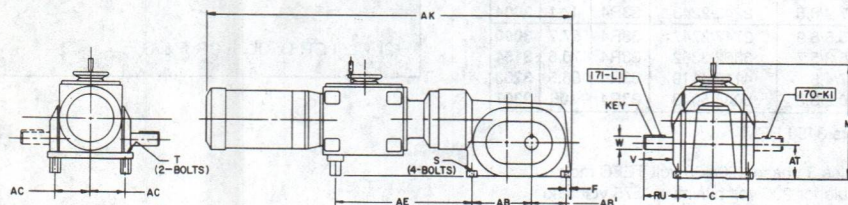
### MASTER Right Angle Worm Gear Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	$\begin{smallmatrix} +.0000 \\ W-.0005 \end{smallmatrix}$	AB	AC	AE	AK
21W4	7.00	.50	15.06	.38	.50	2.50	1.125	3.50	4.03	17.25	40.63
SIZE	AT	RU	KEY	MOTOR FRAME	UNIT WT.						
21W4	3.38	2.50	.25x.25x1.75	180TC	224						

### MASTER Combination Right Angle Gear Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	$\begin{smallmatrix} +.0000 \\ W-.0005 \end{smallmatrix}$	AB	AB <sup>1</sup>	AC	AE	AK
16C4	6.50	.50	14.06	.38	.50	2.50	1.125	5.50	3.50	4.03	16.84	44.00
21C4	8.00	.62	15.69	.50	.50	3.25	1.500	7.00	4.00	4.03	16.97	46.69
28C4	9.00	1.06	17.69	.62	.50	4.56	2.125	9.06	4.94	4.03	17.62	50.81
40C4	12.50	1.19	20.56	1.00	.50	5.50	2.625	11.88	6.62	4.03	21.88	59.69
SIZE	AT	RU	KEY	MOTOR FRAME	UNIT WT.							
16C4	3.00	2.88	.25x.25x1.75	180TC	220							
21C4	4.00	4.00	.38x.38x2.50	180TC	220							
28C4	5.12	6.06	.50x.50x3.50	180TC	374							
40C4	6.50	7.06	.62x.62x4.00	180TC	706							

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 3 HP Right Angle Ratings\* Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
640/—/80	231.5/231.5	21W4	5	3037
426.7/—/53.3	342.4/342.4	21W4	7.5	3037
320/—/40	451/451	21W4	10	3037
252/—/31.5	571.9/571.9	21W4	12.7	3037
213.3/—/26.7	664.7/664.7	21W4	15	3037
177.8/—/22.2	797.7/797.7	21W4	18	3037
160/—/20	884.9/884.9	16C4	20	3037
128/—/16	1106/1106	16C4	25	3037
106.7/—/13.3	1308/1308	16C4	30	3037
88.9/—/11.1	1569/1569	16C4	36	3128
80/—/10	1733/1733	21C4	40	3128
64/—/8	2170/2170	21C4	50	3128
53.3/—/6.7	2604/2604	21C4	60	3128
45.7/—/5.7	2972/2972	21C4	70	3128
37.2/—/4.7	3512/3512	28C4	86	3766
31.7/—/4	4017/4017	28C4	101	3766
26.5/—/3.3	4706/4706	28C4	121	3766
22.2/—/2.8	5600/5600	28C4	144	3766
19.8/—/2.5	5888/5888	28C4	162	3766
16.7/—/2.1	6979/6979	28C4	192	3766
13.3/—/1.7	7423/7423	40C4	240	5155
11.1/—/1.4	8740/8740	40C4	288	5155

\*All motors 3450 RPM

(1) Includes 3 phase 230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

# Accessories

**Motor Options:** See modifications page M2-50 for  
description of enclosures.

Item	List Addition
SXTF	\$425
Easy Clean EZFC	\$480
Explosion Proof XPFC (2)	\$580
Energy Efficient SXE	\$520

## Standard Modifications

Shaft Input (unit supplied less motor)

**\$350** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for  
additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

ERC without pushbutton **\$683** list addition

DAC with meter **\$1847** list addition

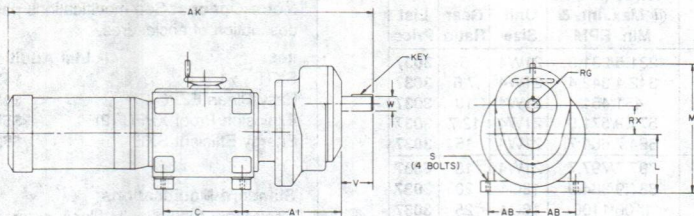
DAC without meter **\$1359** list addition

(2) CL. I GP. D, CL. II GP. F & G



# 5 HP Parallel — Complete Assemblies

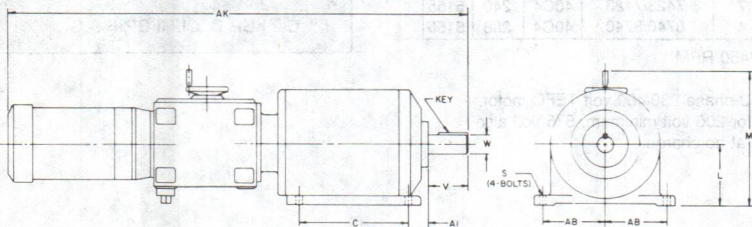
## Single Stage REEVES Gear Reducer



Assembly 104

SIZE	C	L	M	S	V	W - .0005	AB	AI	AK	RX	KEY	MOTOR FRAME	UNIT WT.
31R5	9.06	6.62	17.25	.50	3.63	1.750	5.25	10.41	41.50	3.44	.38x.38x2.69	180TC	310

## Double and Triple Stage REEVES Gear Reducers



Assembly 105

SIZE	C	L	M	S	V	W - .0005	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
32R5	12.38	6.62	17.28	.62	4.38	2.125	6.81	1.44	49.25	.50x.50x3.38	180TC	370
43R5	16.12	8.12	18.78	.75	5.12	2.500	8.25	2.44	53.37	.62x.62x3.94	180TC	465

For complete dimensions and optional assemblies refer to dimension section.

# Ratings<sup>(1)</sup>

## 5 HP Parallel Ratings

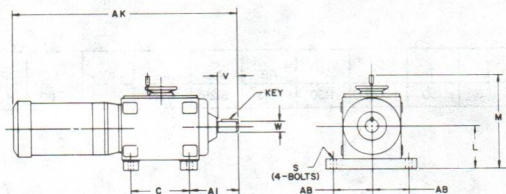
## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
3200/3000/400	84.7/90.3	0005*	—	2907
2601/2439/325.2	101/107.8	31R5*	1.23	3763
2133/2000/266.7	123.2/131.4	31R5*	1.50	3763
2000/1700/200	135.5/159.4	0005	—	2907
1739/1630/217.4	151.2/161.2	31R5*	1.84	3763
1626/1382/162.6	161.7/190.2	31R5	1.23	3763
1333/1133/133.3	197.2/232	31R5	1.50	3763
1087/923.9/108.7	241.9/284.5	31R5	1.84	3763
888.9/755.6/88.9	295.7/347.9	31R5	2.25	3763
724.6/615.9/72.5	362.8/426.8	31R5	2.76	3763
591.7/502.3/59.2	444.3/522.7	31R5	3.38	3828
484.3/411.6/48.4	542.8/638.6	31R5	4.13	3925
395.3/336/39.5	665.1/782.5	31R5	5.06	4011
322.6/274.2/32.3	814.9/958.7	31R5	6.20	4078
263.5/224/26.4	977.1/1149	32R5	7.59	4099
215/182.8/21.5	1197/1408	32R5	9.30	4143
175.4/149.1/17.5	1467/1726	32R5	11.4	4175
142.9/121.4/14.3	1802/2120	32R5	14.0	4249
117/99.4/11.7	2201/2589	32R5	17.1	4293
95.7/81.3/9.6	2690/3165	32R5	20.9	4381
78.1/66.4/7.8	3295/3877	32R5	25.6	4490
52.1/44.3/5.2	4839/5693	43R5	38.4	4587
42.5/36.1/4.3	5935/6982	43R5	47.1	4664
34.7/29.5/3.5	7271/8554	43R5	57.7	4770
28.3/24.1/2.8	8896/10466	43R5	70.6	5662

\*3450 RPM Motor

- (1) Includes 3 phase 230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

## Shaft Output



Assembly 100

SIZE	C	L	M	S	V	W	AB	AI	AK	KEY	MOTOR FRAME	UNIT WT.
0005	9.00	6.62	17.25	.50	2.50	1.125	5.25	7.12	34.56	.25x.25	180TC	255

## Accessories

**Motor Options:** See modifications page M2-50 for description of enclosures.

Item	List Addition
SXTF	\$430
Easy Clean EZFC	\$520
Explosion Proof XPFC (2)	\$580
Energy Efficient SXE	\$550

### Standard Modifications

Shaft Input (unit supplied less motor)

**\$395** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

ERC without pushbutton **\$683** list addition

DAC with meter **\$1961** list addition

DAC without meter **\$1473** list addition

(2) CL. I GP. D, CL. II GP. F & G





# Ratings<sup>(1)</sup>

# Accessories

## 5 HP Right Angle Ratings

## Discount Re-12f

RPM Max./Int./Min.	Torque (in./lb.) @ Max./Int. & Min. RPM	Unit Size	Gear Ratio	\$ List Price
640/600/80	376.4/404	28W5*	5	4334
400/350/40	615/706	35G5	5	4334
266.7/233.3/26.7	920/1049	28W5	7.5	4334
200/175/20	1204/1372	35G5	10	4334
157.5/137.8/15.8	1524/1743	28W5	12.7	4334
133.3/116.7/13.3	1689/1948	40W5	15	4334
111.1/97.2/11.1	2012/2292	40W5	18	4334
100/87.5/10	2407/2748	21C5	20	4608
80/70/8	2888/3298	21C5	25	4608
66.7/58.3/6.7	3524/4030	28C5	30	4608
55.6/48.6/5.6	4229/4836	28C5	36	4608
50/43.8/5	4628/5274	28C5	40	4608
40/35/4	5881/6708	28C5	50	4608
33.3/29.2/3.3	6919/7911	28C5	60	6842
28.6/25/2.9	7847/8940	28C5	70	6842
23.3/20.4/2.3	8807/10147	40C5	86	6842
19.8/17.3/2	10462/12021	40C5	101	6842
16.5/14.5/1.7	12042/13761	40C5	121	6842
13.9/12.2/1.4	13833/15808	40C5	144	6842
12.4/10.8/1.2	15941/18210	40C5	162	8210
10.4/9.1/1	17714/20154	40C5	192	8210

\*3450 RPM Motor

- (1) Includes 3 phase 230/460 volt TEFC motor.  
Suitable for 200 volt minimum. 575 volt also  
available at no charge.

**Motor Options:** See modifications page M2-50 for  
description of enclosures.

Item	List Addition
SXTF	\$430
Easy Clean EZFC	\$520
Explosion Proof XPFC (2)	\$580
Energy Efficient SXE	\$550

## Standard Modifications

Shaft Input (unit supplied less motor)

**\$395** list deduction

Digital Tachometer —

w/panel mount meter **\$1019** list addition

w/bench mount meter **\$1111** list addition

Refer to modifications page M2-51 for  
additional information on digital tachometers.

ERC with pushbutton **\$728** list addition

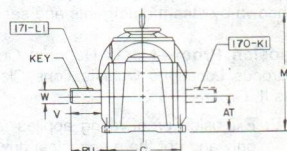
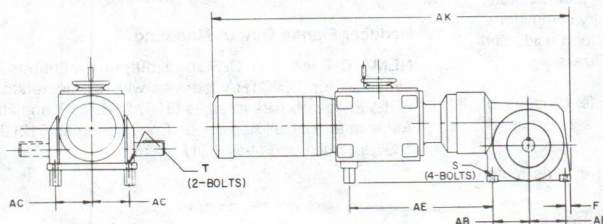
ERC without pushbutton **\$683** list addition

DAC with meter **\$1961** list addition

DAC without meter **\$1473** list addition

(2) CL. I GP. D, CL. II GP. F & G

## MASTER Right Angle Worm Gear Reducer



Assembly 171 LI or 170 KI

SIZE	C	F	M	S	T	V	W +.0000 - .0005	AB	AC	AE	AK
28W5	8.00	.75	18.12	.50	.50	3.25	1.500	4.00	5.25	21.31	48.50
40W5	11.00	.88	21.44	.88	.50	4.50	2.125	6.00	5.25	23.25	54.56

SIZE	AT	RU	KEY	MOTOR FRAME	UNIT WT.
28W5	4.00	3.88	.38x.38x2.50	180TC	399
40W5	5.75	5.12	.50x.50x3.75	180TC	627



## Modification Options—Complete Assemblies

MOTOR MODIFICATIONS LIST PRICE ADDITIONS								
	HORSEPOWER							
	1/4	1/2	3/4	1	1 1/2	2	3	5
50 Hz.	\$75	\$75	\$ 75	\$ 75	\$ 75	\$ 75	\$ 75	\$ 75
Special Voltage	\$45	\$45	\$ 65	\$ 65	\$ 65	\$ 65	\$ 90	\$ 90
Single Phase 115/230 Volt	\$65	\$80	\$130	\$270	\$286	\$470	\$548	\$1,092

### Motor Enclosures

The DISCTRAC drive features a totally enclosed traction case suitable for most environments when connected to a motor with an appropriate enclosure. Standard DISCTRAC motors are of totally enclosed, fan cooled construction. Optional motor enclosures are listed at the bottom of the rating pages. These include:

**SXTF and XTFC**—Motors specially constructed to withstand the corrosive atmospheres of chemical plants, oil refineries, paper mills, mines, etc.

**Easy Clean**—smooth frame totally enclosed motors designed to meet the rigid, sanitary codes of federal, state, and local government agencies and industry committees. Designed to resist the corrosive action of food acids and washdown by steam detergents and sanitizers.

**Explosion Proof**—Meets National Code Classes of Hazardous Locations Qualifications Class I, Group D; Class II, Groups F & G.

**NOTE:** Explosion proof rating applies to electric motor only and not the mechanical drive.

**Energy Efficient**—Motors specifically designed and constructed to operate with less wattage loss than standard industrial motors.

**Shaft Input**—DISCTRAC drives can be supplied with standard shaft input in place of NEMA C-face motor input. This provides the capability of direct coupling or V-belt and sheave connection to foot mounted motors.

When input is below normal 1,750 or 3,450 rpm, the horsepower capacity of the drive must be reduced proportionally.

List price deductions for substituting shaft input for C-face motor input are found on the rating pages.

### Reducer Flange Output Mounting

NEMA C-Face and D-Flange output mountings are available for DISCTRAC drives with single reduction REEVES gearboxes in sizes O1R, 21R, 31R and Right Angle gearing. Call Application Engineering at (812) 376-1397 for price and availability.

## Electric Remote Control (ERC)

DISCTRAC drives can be supplied with 115 volt, single phase electric remote control in place of the standard handwheel control. The ERC consists of a fractional horsepower gearmotor connected to the shifting screw of the DISCTRAC. This gearmotor is energized through a two element, momentary contact push button station marked fast and slow. Push button is normally supplied in a surface mount NEMA 1 enclosure.

Electric Remote Control Package for all drive sizes: **\$728**  
List Addition

Extra push button station: **\$47**

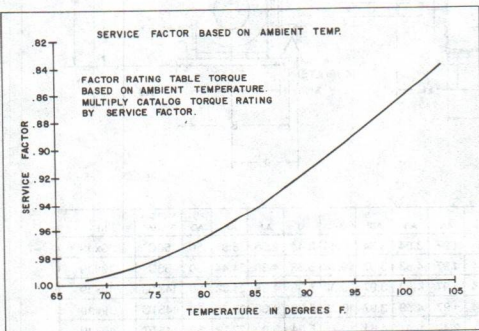
NEMA 4 & 5 Watertight Push Button Station: **\$125**

NEMA 12 Oil Tight Push Button Station: **\$150**

**Digital Tachometer**—DISCTRAC drives are available with digital readout tachometers. Tachometer is powered by 115 volt, single phase A-C, and can be programmed to read in any time rate unit such as rpm, fpm, tons per hour, etc. When specified, tachometers with reverse time readings, such as minutes, baking time are available.

## DISCTRAC Service Factor

When applying DISCTRAC Drives in applications where ambient temperatures exceed 68°F, the output torque capability must be factored by using the table



## TACHOMETER LIST PRICE ADDITIONS FOR ALL DRIVE SIZES

ITEM	LIST ADDER
Basic Package with Panel Mount Meter and 10 Feet of Signal Cable	\$1,019
Add for Bench Mount Meter	\$92
Add for Explosion Proof Magnetic Pickup (1)	\$497
Add for Explosion Proof Meter Housing (2)	\$918
Add for NEMA 4X, 13 Meter Housing	\$216
Additional Signal Cable (Per Foot)	\$2
(1) Class I, Groups A, B, C, D Class II, Groups E, F, G Signal Input Cable not supplied	
(2) Class I, Group D Class II, Groups E, F, G Signal Input Cable and A-C Power Cord <i>not</i> supplied	

provided. Multiply the torque ratings listed in the products catalog selection pages by the Service Factor listed in the table.

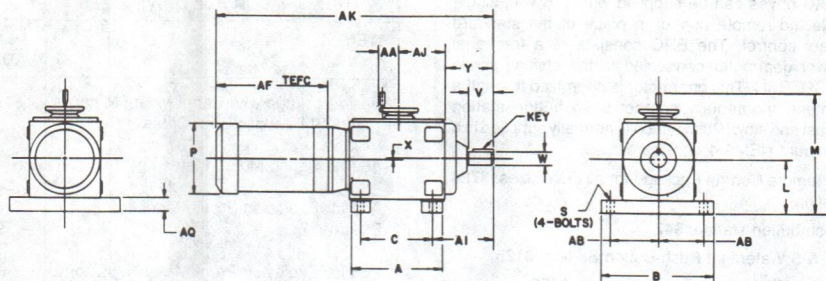
## AUTOMATIC CONTROL LIST PRICES

SIZE	NEW DAC		RETROFIT DAC	
	With Meter	Without Meter	With Meter	Without Meter
0002	\$1650	\$1162	\$1857	\$1369
0003	1768	1280	2284	1797
0004	1847	1359	2482	1994
0005	1961	1473	2879	2391



# Dimensions

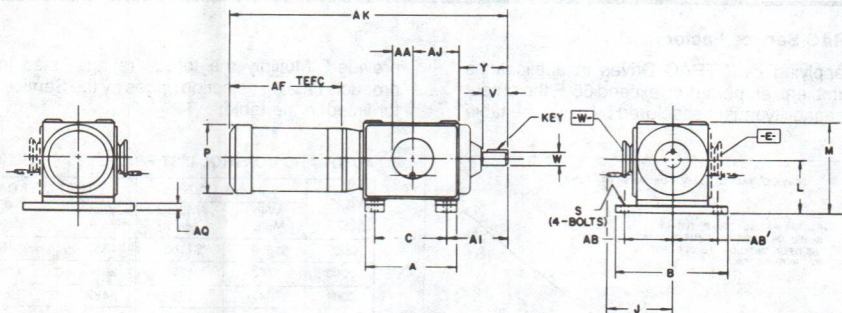
## Non-Reducer Shaft Output—Handwheel N



Assembly 100

SIZE	A	B	C	L	M	P	S	V	W	X	Y	AA	AB	AF	AI	AJ	AK	AQ	KEY	MOTOR FRAME
0002	4.15	6.75	3.15	3.38	10.42	7.28	.38	1.88	.625	0	2.84	1.97	2.88	9.44	3.44	2.56	18.81	.62	.19x.19	56C
0003	8.14	8.00	6.88	4.38	11.91	7.28	.50	2.00	.875	.39	4.44	1.97	3.38	9.44	5.38	4.38	24.44	.50	.19x.19	56C
0003	8.14	8.00	6.88	4.38	11.91	7.28	.50	2.00	.875	.39	4.44	1.97	3.38	9.32	5.38	4.38	24.32	.50	.19x.19	143TC
0003	8.14	8.00	6.88	4.38	11.91	7.28	.50	2.00	.875	.39	4.44	1.97	3.38	10.75	5.38	4.38	25.75	.50	.19x.19	145TC
0004	8.93	9.31	7.69	5.12	14.19	7.28	.50	2.00	.875	.39	4.81	2.47	4.03	10.75	5.94	5.00	27.12	.50	.19x.19	145TC
0004	8.93	9.31	7.69	5.12	14.19	9.25	.50	2.00	.875	.39	4.81	2.47	4.03	14.94	5.94	5.00	32.75	.50	.19x.19	180TC
0005	10.31	11.75	9.00	6.62	17.25	9.25	.50	2.50	1.125	.47	5.69	3.15	5.25	14.94	7.12	5.94	34.56	.50	.25x.25	180TC

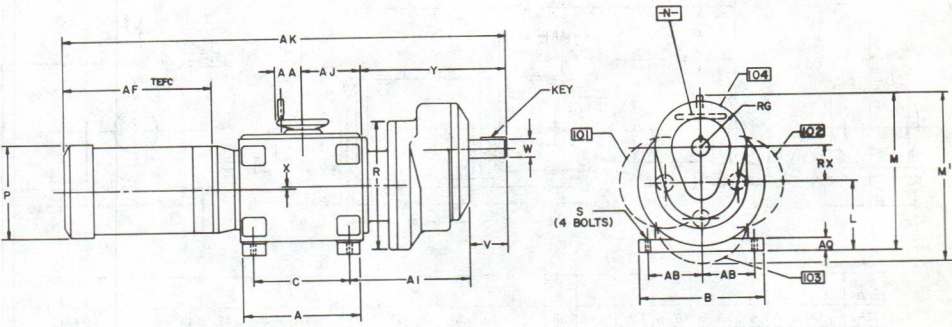
## Non-Reducer Shaft Output—Handwheel W & E



Assembly 100

SIZE	A	B	C	J	L	M	P	S	V	W	Y	AA	AB	AB'	AF	AI	AJ	AK	AQ	MOTOR FRAME	KEY
0002	4.15	8.19	3.15	7.06	3.75	7.41	7.28	.38	1.88	.625	2.84	1.97	3.84	3.34	9.44	3.44	2.56	18.81	.50	56C	.19x.19
0003	8.14	9.75	6.88	7.50	3.81	7.44	7.28	.50	2.00	.875	4.44	1.97	4.53	3.97	9.44	5.38	4.38	24.44	.50	56C	.19x.19
0003	8.14	9.75	6.88	7.50	3.81	7.44	7.28	.50	2.00	.875	4.44	1.97	4.53	3.97	9.32	5.38	4.38	24.32	.50	143TC	.19x.19
0003	8.14	9.75	6.88	7.50	3.81	7.44	7.28	.50	2.00	.875	4.44	1.97	4.53	3.97	10.75	5.38	4.38	25.75	.50	145TC	.19x.19
0004	8.93	11.50	7.69	9.06	4.56	8.22	7.28	.50	2.00	.875	4.81	2.47	5.41	4.84	10.75	5.94	5.00	27.12	.50	145TC	.19x.19
0004	8.93	11.50	7.69	9.06	4.56	9.19	9.25	.50	2.00	.875	4.81	2.47	5.41	4.84	14.94	5.94	5.00	32.75	.50	180TC	.19x.19
0005	10.31	14.62	9.00	10.66	5.50	10.12	9.25	.50	2.50	1.125	5.69	3.15	6.19	6.47	14.94	7.12	5.94	34.56	.50	180TC	.25x.25

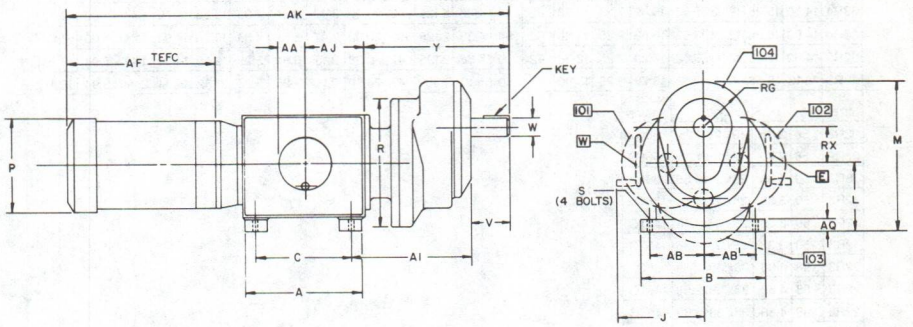
With Single Reduction REEVES Gear—Handwheel N



Assembly 104, 103, 102, 101

SIZE	A	B	C	L	M	M'	P DIA.	R	S	V	W	X	Y	AA	AB	AF	AI	AJ	AK	AQ	RG	RX	KEY	MOTOR FRAME
01R2	4.15	6.75	3.15	3.75	10.75	10.62	7.28	5.50	.38	1.63	.750	0	7.06	1.97	2.88	9.44	6.03	2.56	23.25	.62	2.13	1.50	.19x.19x1.00	56C
21R3	8.14	8.00	6.88	5.00	12.50	13.75	7.28	9.88	.50	2.88	1.375	.39	10.81	1.97	3.38	9.32	8.81	4.38	30.69	.50	3.50	2.75	.31x.31x2.00	56C
21R3	8.14	8.00	6.88	5.00	12.50	13.75	7.28	9.88	.50	2.88	1.375	.39	10.81	1.97	3.38	9.32	8.81	4.38	30.69	.50	3.50	2.75	.31x.31x2.00	143TC
21R3	8.14	8.00	6.88	5.00	12.50	13.75	7.28	9.88	.50	2.88	1.375	.39	10.81	1.97	3.38	10.75	8.81	4.38	32.12	.50	3.50	2.75	.31x.31x2.00	145TC
21R4	8.93	9.31	7.69	5.38	14.50	15.31	7.28	9.88	.50	2.88	1.375	.39	10.81	2.47	4.03	10.75	9.03	5.00	33.19	.50	3.50	2.75	.31x.31x2.00	145TC
21R4	8.93	9.31	7.69	5.38	14.50	15.31	9.25	9.88	.50	2.88	1.375	.39	10.81	2.47	4.03	14.94	9.03	5.00	37.37	.50	3.50	2.75	.31x.31x2.00	180TC
31R5	10.31	11.75	9.06	6.62	17.25	18.25	9.25	9.88	.50	3.63	1.750	.47	12.62	3.15	5.25	14.94	10.41	5.94	41.50	.50	4.13	3.44	.38x.38x2.69	180TC

With Single Reduction REEVES Gear—Handwheel W & E

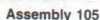


Assembly 104, 103, 102, 101

SIZE	A	B	C	J	L	M	P DIA.	R	S	V	W	Y	AA	AB	AB'	AF	AI	AJ	AK	AQ	RG	RX	KEY	MOTOR FRAME
01R2	4.15	8.19	3.15	7.00	3.75	7.38	7.28	5.50	.38	1.63	.750	7.06	1.97	3.84	3.34	9.44	6.03	2.56	23.25	.50	2.13	1.50	.19x.19x1.00	56C
21R3	8.14	9.75	6.88	7.51	5.12	11.38	7.28	9.88	.50	2.88	1.375	10.81	1.97	4.53	3.97	9.44	8.81	4.38	30.81	.50	3.50	2.75	.31x.31x2.00	56C
21R3	8.14	9.75	6.88	7.51	5.12	11.38	7.28	9.88	.50	2.88	1.375	10.81	1.97	4.53	3.97	9.32	8.81	4.38	30.69	.50	3.50	2.75	.31x.31x2.00	143TC
21R3	8.14	9.75	6.88	7.51	5.12	11.38	7.28	9.88	.50	2.88	1.375	10.81	1.97	4.53	3.97	10.75	8.81	4.38	32.12	.50	3.50	2.75	.31x.31x2.00	145TC
21R4	8.94	11.50	7.69	9.07	5.12	11.38	7.28	9.88	.50	2.88	1.375	10.81	2.47	5.41	4.84	10.75	9.03	5.00	33.19	.50	3.50	2.75	.31x.31x2.00	145TC
21R4	8.94	11.50	7.69	9.07	5.12	11.38	9.25	9.88	.50	2.88	1.375	10.81	2.47	5.41	4.84	14.94	9.03	5.00	37.37	.50	3.50	2.75	.31x.31x2.00	180TC
31R5	10.31	14.62	9.06	10.66	5.25	12.81	9.25	9.88	.50	3.63	1.750	12.62	3.15	6.91	6.47	14.94	10.41	5.94	41.50	.50	4.13	3.44	.38x.38x2.69	180TC

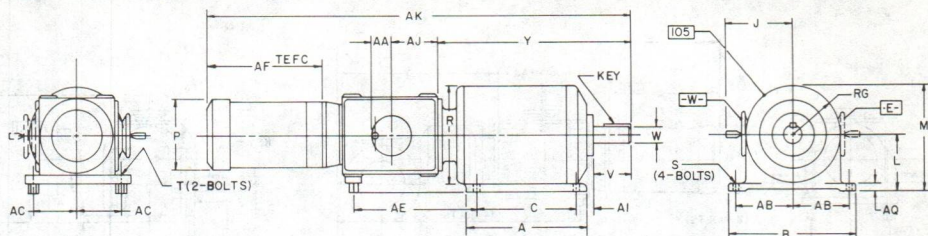


**With Double & Triple Reduction REEVES Gear—Handwheel N**



SIZE	AQ	RG	KEY	MOTOR FRAME
02R2	.56	2.75	19x.19x1.25	56C
03R2	.56	2.75	19x.19x1.25	56C
12R2	.50	3.38	25x.25x1.56	56C
12R3	.50	3.38	25x.25x1.56	56C
12R3	.50	3.38	25x.25x1.56	143TC
12R3	.50	3.38	25x.25x1.56	145TC
22R3	.88	4.88	38x.38x2.69	56C
22R3	.88	4.88	38x.38x2.69	143TC
22R3	.88	4.88	38x.38x2.69	145TC
23R3	.88	4.88	38x.38x2.69	56C
23R3	.88	4.88	38x.38x2.69	143TC
23R3	.88	4.88	38x.38x2.69	145TC
22R4	.88	4.88	38x.38x2.69	145TC
22R4	.88	4.88	38x.38x2.69	180TC
33R4	1.25	6.50	50x.50x3.38	145TC
33R4	1.25	6.50	50x.50x3.38	180TC
32R5	1.25	6.50	50x.50x3.38	180TC
43R5	1.25	8.00	62x.62x3.94	180TC

# With Double & Triple Reduction REEVES Gear—Handwheel W & E



Assembly 105

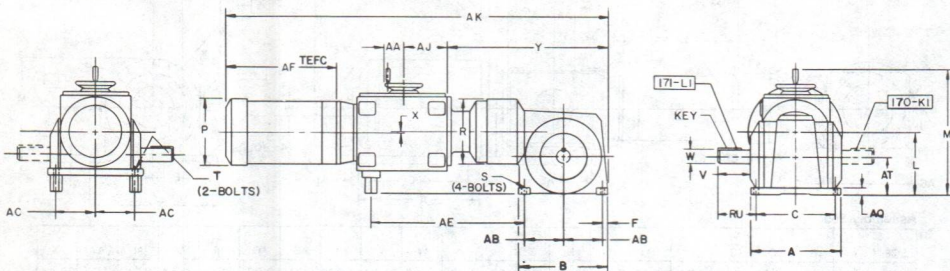
SIZE	A	B	C	J	L	M	P DIA	R	S	T	V	W	Y	AA	AB	AC	AE	AF	AI	AJ	AK
02R2	7.12	7.62	6.12	7.00	3.75	6.50	7.28	5.50	.38	.38	1.88	.875	13.47	1.97	3.31	2.88	6.41	9.44	2.81	2.56	29.44
03R2	7.12	7.62	6.12	7.00	3.75	6.50	7.28	5.50	.38	.38	1.88	.875	13.47	1.97	3.31	2.88	6.41	9.44	2.81	2.56	29.44
13R2	11.38	9.50	10.25	7.00	4.62	8.00	7.28	7.44	.50	.38	2.38	1.125	15.56	1.97	3.75	2.88	5.25	9.44	1.44	2.56	31.56
12R3	11.38	9.50	10.25	7.51	4.62	8.00	7.28	7.44	.50	.50	2.38	1.125	16.02	1.97	3.75	3.38	9.89	9.44	1.44	4.38	36.00
12R3	11.38	9.50	10.25	7.51	4.62	8.00	7.28	7.44	.50	.50	2.38	1.125	16.02	1.97	3.75	3.38	9.89	9.32	1.44	4.38	35.88
12R3	11.38	9.50	10.25	7.51	4.62	8.00	7.28	7.44	.50	.50	2.38	1.125	16.02	1.97	3.75	3.38	9.89	10.75	1.44	4.38	37.31
22R3	12.31	13.00	10.06	7.51	5.75	10.68	7.28	9.88	.50	.50	3.62	1.750	19.19	1.97	5.69	3.38	11.75	9.44	1.69	4.38	39.19
22R3	12.31	13.00	10.06	7.51	5.75	10.68	7.28	9.88	.50	.50	3.62	1.750	19.19	1.97	5.69	3.38	11.75	9.32	1.69	4.38	39.07
22R3	12.31	13.00	10.06	7.51	5.75	10.68	7.28	9.88	.50	.50	3.62	1.750	19.19	1.97	5.69	3.38	11.75	10.75	1.69	4.38	40.50
23R3	12.31	13.00	10.06	7.51	5.75	10.68	7.28	9.88	.50	.50	3.62	1.750	19.19	1.97	5.69	3.38	11.75	9.44	1.69	4.38	39.19
23R3	12.31	13.00	10.06	7.51	5.75	10.68	7.28	9.88	.50	.50	3.62	1.750	19.19	1.97	5.69	3.38	11.75	9.32	1.69	4.38	39.07
23R3	12.31	13.00	10.06	7.51	5.75	10.68	7.28	9.88	.50	.50	3.62	1.750	19.19	1.97	5.69	3.38	11.75	10.75	1.69	4.38	40.50
22R4	12.31	13.00	10.06	9.07	5.75	10.68	7.28	9.88	.50	.50	3.62	1.750	19.19	2.47	5.69	4.03	11.75	10.75	1.69	5.00	41.50
22R4	12.31	13.00	10.06	9.07	5.75	10.68	9.25	9.88	.50	.50	3.62	1.750	19.19	2.47	5.69	4.03	11.75	14.94	1.69	5.00	46.81
33R4	14.00	15.25	12.38	9.07	6.62	13.12	7.28	12.38	.62	.50	4.38	2.125	20.02	2.47	6.81	4.03	10.66	10.75	1.44	5.00	42.38
33R4	14.00	15.25	12.38	9.07	6.62	13.12	9.25	12.38	.62	.50	4.38	2.125	20.02	2.47	6.81	4.03	10.66	14.94	1.44	5.00	47.63
32R5	14.00	15.25	12.38	10.66	6.62	13.12	9.25	12.38	.62	.50	4.38	2.125	20.38	3.15	6.81	5.25	12.69	14.94	1.44	5.94	49.25
43R5	19.12	18.62	16.12	10.66	8.12	16.12	9.25	15.00	.75	.50	5.12	2.500	24.50	3.15	8.25	5.25	11.32	14.94	2.44	5.94	53.37

SIZE	AQ	RG	KEY	MOTOR FRAME
02R2	.56	2.75	.19x.19x1.25	56C
03R2	.56	2.75	.19x.19x1.25	56C
13R2	.50	3.38	.25x.25x1.56	56C
12R3	.50	3.38	.25x.25x1.56	56C
12R3	.50	3.38	.25x.25x1.56	143TC
12R3	.50	3.38	.25x.25x1.56	145TC
22R3	.88	4.88	.38x.38x2.69	56C
22R3	.88	4.88	.38x.38x2.69	143TC
22R3	.88	4.88	.38x.38x2.69	145TC
23R3	.88	4.88	.38x.38x2.69	56C
23R3	.88	4.88	.38x.38x2.69	143TC
23R3	.88	4.88	.38x.38x2.69	145TC
22R4	.88	4.88	.38x.38x2.69	145TC
22R4	.88	4.88	.38x.38x2.69	180TC
33R4	1.25	6.50	.50x.50x3.38	145TC
33R4	1.25	6.50	.50x.50x3.38	180TC
32R5	1.25	6.50	.50x.50x3.38	180TC
43R5	1.25	8.00	.62x.62x3.94	180TC



# Dimensions

## With MASTER XL Single Worm, Right Angle Reducer—Handwheel N

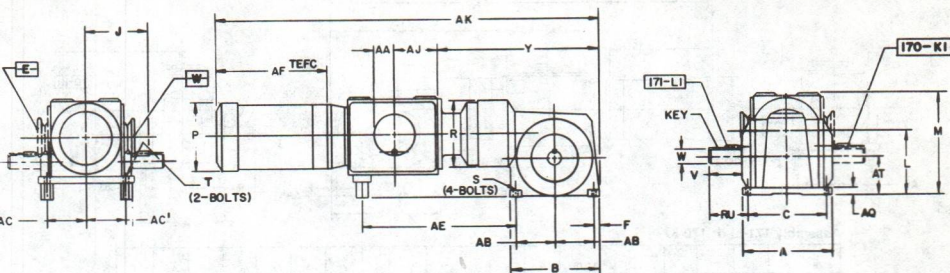


Assembly 171LI or 170 KI

SIZE	A	B	C	F	L	M	PDIA	R	S	T	V	W	X	Y	AA	AB	AC	AE	AF
12W2	5.00	5.25	4.00	.50	3.75	10.81	7.28	6.72	.31	.38	1.69	.750	0	11.66	1.97	2.12	2.88	10.66	9.44
16W2	5.50	6.88	4.50	.44	4.50	11.56	7.28	6.72	.38	.38	2.00	.875	0	13.25	1.97	3.00	2.88	10.62	9.44
21W2	8.00	8.00	7.00	.50	6.00	13.06	7.28	6.72	.38	.38	2.50	1.125	0	14.56	1.97	3.50	2.88	10.81	9.44
16W3	5.50	6.88	4.50	.44	4.50	12.00	7.28	6.72	.38	.50	2.00	.875	.39	14.12	1.97	3.00	3.38	15.62	9.44
16W3	5.50	6.88	4.50	.44	4.50	12.00	7.28	6.72	.38	.50	2.00	.875	.39	14.12	1.97	3.00	3.38	15.62	9.32
16W3	5.50	6.88	4.50	.44	4.50	12.00	7.28	6.72	.38	.50	2.00	.875	.39	14.12	1.97	3.00	3.38	15.62	10.75
21W3	8.00	8.00	7.00	.50	6.00	13.50	7.28	6.72	.38	.50	2.50	1.125	.39	15.44	1.97	3.50	3.38	15.88	9.44
21W3	8.00	8.00	7.00	.50	6.00	13.50	7.28	6.72	.38	.50	2.50	1.125	.39	15.44	1.97	3.50	3.38	15.88	9.32
21W3	8.00	8.00	7.00	.50	6.00	13.50	7.28	6.72	.38	.50	2.50	1.125	.39	15.44	1.97	3.50	3.38	15.88	10.75
21W4	8.00	8.00	7.00	.50	6.00	15.06	7.28	6.72	.38	.50	2.50	1.125	.39	15.62	2.47	3.50	4.03	16.94	10.75
21W4	8.00	8.00	7.00	.50	6.00	15.06	9.25	6.72	.38	.50	2.50	1.125	.39	15.94	2.47	3.50	4.03	17.25	14.94
28W5	9.50	9.75	8.00	.75	7.50	18.12	9.25	9.22	.50	.50	3.25	1.500	.47	19.59	3.15	4.00	5.25	21.31	14.94
40W5	12.75	13.75	11.00	.88	10.75	21.44	9.25	9.00	.88	.50	4.50	2.125	.47	25.66	3.15	6.00	5.25	23.25	14.94

SIZE	AJ	AK	AQ	AT	RU	KEY	MOTOR FRAME
12W2	2.56	27.62	.50	2.25	2.00	.19x.19x1.00	56C
16W2	2.56	29.24	.62	2.50	2.31	.19x.19x1.25	56C
21W2	2.56	30.56	.62	3.38	2.50	.25x.25x1.75	56C
16W3	4.38	34.13	.62	2.50	2.31	.19x.19x1.25	56C
16W3	4.38	34.01	.62	2.50	2.31	.19x.19x1.25	143TC
16W3	4.38	35.44	.62	2.50	2.31	.19x.19x1.25	145TC
21W3	4.38	35.44	.62	3.38	2.50	.25x.25x1.75	56C
21W3	4.38	35.32	.62	3.38	2.50	.25x.25x1.75	143TC
21W3	4.38	36.75	.62	3.38	2.50	.25x.25x1.75	145TC
21W4	5.00	38.00	.62	3.38	2.50	.25x.25x1.75	145TC
21W4	5.00	40.63	.62	3.38	2.50	.25x.25x1.75	180TC
28W5	5.94	48.50	.88	4.00	3.88	.38x.38x2.50	180TC
40W5	5.94	54.56	1.00	5.75	5.12	.50x.50x3.75	180TC

# With MASTER XL Single Worm, Right Angle Reducer—Handwheel W & E



Assembly 171-LI or 170-KI

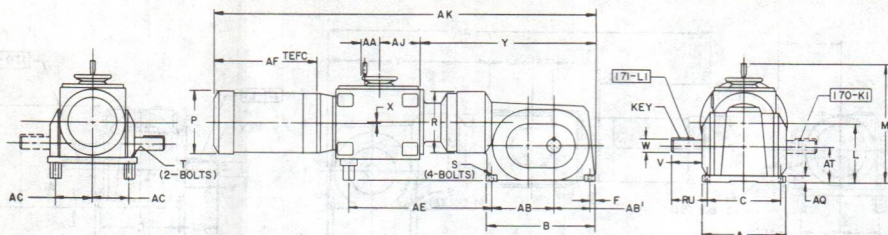
SIZE	A	B	C	F	J	L	M	P DIA.	R	S	T	V	W	X	Y	AA	AB	AC	AC'	AE	AF
12W2	5.00	5.25	4.00	.50	7.00	3.75	7.41	7.28	6.72	.31	.38	1.69	.750	0	11.66	1.97	2.12	3.84	3.34	10.66	9.44
16W2	5.50	6.88	4.50	.44	7.00	4.50	8.19	7.28	6.72	.38	.38	2.00	.875	0	13.25	1.97	3.00	3.84	3.34	10.62	9.44
21W2	8.00	8.00	7.00	.50	7.00	6.00	9.64	7.28	6.72	.38	.38	2.50	1.125	0	14.56	1.97	3.50	3.84	3.34	10.81	9.44
16W3	5.50	6.88	4.50	.44	7.51	4.50	8.19	7.28	6.72	.38	.50	2.00	.875	.39	14.12	1.97	3.00	4.53	3.97	15.62	9.44
16W3	5.50	6.88	4.50	.44	7.51	4.50	8.19	7.28	6.72	.38	.50	2.00	.875	.39	14.12	1.97	3.00	4.53	3.97	15.62	9.32
16W3	5.50	6.88	4.50	.44	7.51	4.50	8.19	7.28	6.72	.38	.50	2.00	.875	.39	14.12	1.97	3.00	4.53	3.97	15.62	10.75
21W3	8.00	8.00	7.00	.50	7.51	6.00	9.69	7.28	6.72	.38	.50	2.50	1.125	.39	15.44	1.97	3.50	4.53	3.97	15.88	9.44
21W3	8.00	8.00	7.00	.50	7.51	6.00	9.69	7.28	6.72	.38	.50	2.50	1.125	.39	15.44	1.97	3.50	4.53	3.97	15.88	9.32
21W3	8.00	8.00	7.00	.50	7.51	6.00	9.69	7.28	6.72	.38	.50	2.50	1.125	.39	15.44	1.97	3.50	4.53	3.97	15.88	10.75
21W4	8.00	8.00	7.00	.50	9.07	6.00	9.69	7.28	6.72	.38	.50	2.50	1.125	.39	15.62	2.47	3.50	5.41	4.84	16.94	10.75
21W4	8.00	8.00	7.00	.50	9.07	6.00	10.62	9.25	6.72	.38	.50	2.50	1.125	.39	15.94	2.47	3.50	5.41	4.84	17.25	14.94
28W5	9.50	9.75	8.00	.75	10.66	7.50	12.12	9.25	9.22	.50	.50	3.25	1.500	.47	19.59	3.15	4.00	6.91	6.47	21.31	14.94
40W5	12.75	13.75	11.00	.88	10.66	10.75	15.38	9.25	9.00	.88	.50	4.50	2.125	.47	25.66	3.15	6.00	6.91	6.47	23.25	14.94

SIZE	AJ	AK	AQ	AT	RU	KEY	MOTOR FRAME
12W2	2.56	27.62	.50	2.25	2.00	.19x.19x1.00	56C
16W2	2.56	29.25	.62	2.50	2.31	.19x.19x1.25	56C
21W2	2.56	30.56	.62	3.38	2.50	.25x.25x1.75	56C
16W3	4.38	34.13	.62	2.50	2.31	.19x.19x1.25	56C
16W3	4.38	34.01	.62	2.50	2.31	.19x.19x1.25	143TC
16W3	4.38	35.44	.62	2.50	2.31	.19x.19x1.25	145TC
21W3	4.38	35.44	.62	3.38	2.50	.25x.25x1.75	56C
21W3	4.38	35.32	.62	3.38	2.50	.25x.25x1.75	143TC
21W3	4.38	36.75	.62	3.38	2.50	.25x.25x1.75	145TC
21W4	5.00	38.00	.62	3.38	2.50	.25x.25x1.75	145TC
21W4	5.00	40.63	.62	3.38	2.50	.25x.25x1.75	180TC
28W5	5.94	48.50	.88	4.00	3.88	.38x.38x2.50	180TC
40W5	5.94	54.56	1.00	5.75	5.12	.50x.50x3.50	180TC



# Dimensions

## With MASTER XL Combination Right Angle Gear—Handwheel N

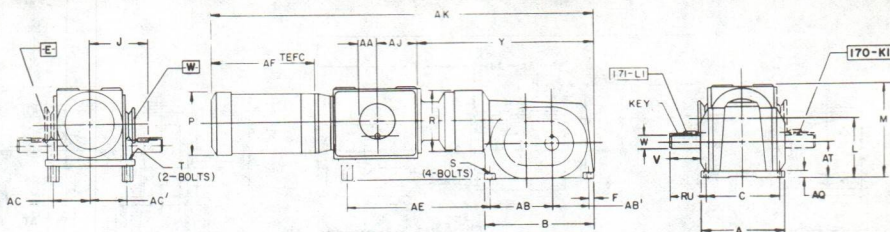


Assembly 171-LI or 170-KI

SIZE	A	B	C	F	L	M	P.DIA.	R	S	T	V	W	X	Y	AA	AB	AB <sup>1</sup>	AC	AE	AF
12C2	6.00	8.00	5.00	.50	4.00	11.06	7.28	6.72	.31	.38	2.00	.875	0	14.56	1.97	4.00	3.00	2.88	10.81	9.44
16C2	7.75	10.00	6.50	.50	5.00	12.06	7.28	6.72	.38	.38	2.50	1.125	0	16.44	1.97	5.50	3.50	2.88	10.69	9.44
16C3	7.75	10.00	6.50	.50	5.00	12.50	7.28	6.72	.38	.50	2.50	1.125	.39	17.31	1.97	5.50	3.50	3.38	15.75	9.44
16C3	7.75	10.00	6.50	.50	5.00	12.50	7.28	6.72	.38	.50	2.50	1.125	.39	17.31	1.97	5.50	3.50	3.38	15.75	9.32
16C3	7.75	10.00	6.50	.50	5.00	12.50	7.28	6.72	.38	.50	2.50	1.125	.39	17.31	1.97	5.50	3.50	3.38	15.75	10.75
21C3	9.25	12.25	8.00	.62	6.62	14.12	7.28	6.72	.50	.50	3.25	1.500	.39	19.56	1.97	7.00	4.00	3.38	15.88	9.44
21C3	9.25	12.25	8.00	.62	6.62	14.12	7.28	6.72	.50	.50	3.25	1.500	.39	19.56	1.97	7.00	4.00	3.38	15.88	9.32
21C3	9.25	12.25	8.00	.62	6.62	14.12	7.28	6.72	.50	.50	3.25	1.500	.39	19.56	1.97	7.00	4.00	3.38	15.88	10.75
28C3	11.12	16.12	9.00	1.06	8.62	16.12	7.28	6.72	.62	.50	4.56	2.125	.39	23.69	1.97	9.06	4.94	3.38	16.56	9.44
28C3	11.12	16.12	9.00	1.06	8.62	16.12	7.28	6.72	.62	.50	4.56	2.125	.39	23.69	1.97	9.06	4.94	3.38	16.56	9.32
28C3	11.12	16.12	9.00	1.06	8.62	16.12	7.28	6.72	.62	.50	4.56	2.125	.39	23.69	1.97	9.06	4.94	3.38	16.56	10.75
16C4	7.75	10.00	6.50	.50	5.00	14.06	7.28	6.72	.38	.50	2.50	1.125	.39	17.50	2.47	5.50	3.50	4.03	16.84	10.75
16C4	7.75	10.00	6.50	.50	5.00	14.06	9.25	6.72	.38	.50	2.50	1.125	.39	17.50	2.47	5.50	3.50	4.03	16.84	14.94
21C4	9.25	12.25	8.00	.62	6.62	15.89	7.28	6.72	.50	.50	3.25	1.500	.39	19.75	2.47	7.00	4.00	4.03	16.97	10.75
21C4	9.25	12.25	8.00	.62	6.62	15.89	9.25	6.72	.50	.50	3.25	1.500	.39	19.75	2.47	7.00	4.00	4.03	16.97	14.94
28C4	11.12	16.12	9.00	1.06	8.62	17.69	7.28	6.72	.62	.50	4.56	2.125	.39	23.88	2.47	9.06	4.94	4.03	17.62	10.75
28C4	11.12	16.12	9.00	1.06	8.62	17.69	9.25	6.72	.62	.50	4.56	2.125	.39	23.88	2.47	9.06	4.94	4.03	17.62	14.94
40C4	15.00	20.88	12.50	1.19	11.50	20.56	7.28	9.00	1.00	.50	5.50	2.625	.39	32.75	2.47	11.88	6.62	4.03	21.88	10.75
40C4	15.00	20.88	12.50	1.19	11.50	20.56	9.25	9.00	1.00	.50	5.50	2.625	.39	32.75	2.47	11.88	6.62	4.03	21.88	14.94
21C5	9.25	12.25	8.00	.62	6.62	17.25	9.25	9.22	.50	.50	3.25	1.500	.47	21.75	3.15	7.00	4.00	5.25	20.66	14.94
28C5	11.12	16.12	9.00	1.06	8.62	19.25	9.25	9.22	.62	.50	4.56	2.125	.47	25.69	3.15	9.06	4.94	5.25	21.12	14.94
40C5	15.00	20.88	12.50	1.19	11.50	22.19	9.25	9.00	1.00	.50	5.50	2.625	.47	32.75	3.15	11.88	6.62	5.25	23.56	14.94

SIZE	AJ	AK	AQ	AT	RU	KEY	MOTOR FRAME
12C2	2.56	30.50	.50	2.50	2.62	19x19x1.25	56C
16C2	2.56	32.50	.62	3.00	2.88	25x.25x1.75	56C
16C3	4.38	37.31	.62	3.00	2.88	25x.25x1.75	56C
16C3	4.38	37.19	.62	3.00	2.88	25x.25x1.75	143TC
16C3	4.38	38.62	.62	3.00	2.88	25x.25x1.75	145TC
21C3	4.38	39.57	.75	4.00	4.00	38x.38x2.50	56C
21C3	4.38	39.45	.75	4.00	4.00	38x.38x2.50	143TC
21C3	4.38	40.88	.75	4.00	4.00	38x.38x2.50	145TC
28C3	4.38	43.69	1.00	5.12	6.06	50x.50x3.50	56C
28C3	4.38	43.57	1.00	5.12	6.06	50x.50x3.50	143TC
28C3	4.38	45.00	1.00	5.12	6.06	50x.50x3.50	145TC
16C4	5.00	39.81	.62	3.00	2.88	25x.25x1.75	145TC
16C4	5.00	44.00	.62	3.00	2.88	25x.25x1.75	180TC
21C4	5.00	42.06	.75	4.00	4.00	38x.38x2.50	145TC
21C4	5.00	46.69	.75	4.00	4.00	38x.38x2.50	180TC
28C4	5.00	46.19	1.00	5.12	6.06	50x.50x3.50	145TC
28C4	5.00	50.81	1.00	5.12	6.06	50x.50x3.50	180TC
40C4	5.00	55.06	1.25	6.50	7.06	62x.62x4.00	145TC
40C4	5.00	59.69	1.25	6.50	7.06	62x.62x4.00	180TC
21C5	5.94	50.63	.75	4.00	4.00	38x.38x2.50	180TC
28C5	5.94	54.63	1.00	5.12	6.06	50x.50x3.50	180TC
40C5	5.94	61.63	1.25	6.50	7.06	62x.62x4.00	180TC

# With MASTER XL Combination Right Angle Gear—Handwheel W & E



Assembly 171 LI or 170 KI

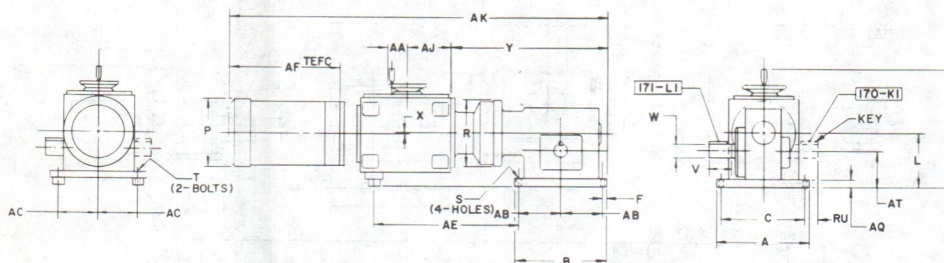
SIZE	A	B	C	F	J	L	M	P DIA.	R	S	T	V	W	Y	AA	AB	AB'	AC	AC'
12C2	6.00	8.00	5.00	.50	7.00	4.00	7.66	7.28	6.72	.31	.38	2.00	.875	14.56	1.97	4.00	3.00	3.84	3.34
16C2	7.75	10.00	6.50	.50	7.00	5.00	8.66	7.28	6.72	.38	.38	2.50	1.125	16.44	1.97	5.50	3.50	3.84	3.34
16C3	7.75	10.00	6.50	.50	7.51	5.00	8.66	7.28	6.72	.38	.50	2.50	1.125	17.31	1.97	5.50	3.50	4.53	3.97
16C3	7.75	10.00	6.50	.50	7.51	5.00	8.66	7.28	6.72	.38	.50	2.50	1.125	17.31	1.97	5.50	3.50	4.53	3.97
16C3	7.75	10.00	6.50	.50	7.51	5.00	8.66	7.28	6.72	.38	.50	2.50	1.125	17.31	1.97	5.50	3.50	4.53	3.97
21C3	9.25	12.25	8.00	.62	7.51	6.62	10.25	7.28	6.72	.50	.50	3.25	1.500	19.56	1.97	7.00	4.00	4.53	3.97
21C3	9.25	12.25	8.00	.62	7.51	6.62	10.25	7.28	6.72	.50	.50	3.25	1.500	19.56	1.97	7.00	4.00	4.53	3.97
21C3	9.25	12.25	8.00	.62	7.51	6.62	10.25	7.28	6.72	.50	.50	3.25	1.500	19.56	1.97	7.00	4.00	4.53	3.97
28C3	11.12	16.12	9.00	1.06	7.51	8.62	12.25	7.28	6.72	.62	.50	4.56	2.125	23.69	1.97	9.06	4.94	4.53	3.97
28C3	11.12	16.12	9.00	1.06	7.51	8.62	12.25	7.28	6.72	.62	.50	4.56	2.125	23.69	1.97	9.06	4.94	4.53	3.97
28C3	11.12	16.12	9.00	1.06	7.51	8.62	12.25	7.28	6.72	.62	.50	4.56	2.125	23.69	1.97	9.06	4.94	4.53	3.97
16C4	7.75	10.00	6.50	.50	9.07	5.00	8.66	7.28	6.72	.38	.50	2.50	1.125	17.50	2.47	5.50	3.50	5.41	4.84
16C4	7.75	10.00	6.50	.50	9.07	5.00	9.62	9.25	6.72	.38	.50	2.50	1.125	17.50	2.47	5.50	3.50	5.41	4.84
21C4	9.25	12.25	8.00	.62	9.07	6.62	10.25	7.28	6.72	.50	.50	3.25	1.500	19.75	2.47	7.00	4.00	5.41	4.84
21C4	9.25	12.25	8.00	.62	9.07	6.62	11.25	9.25	6.72	.50	.50	3.25	1.500	19.75	2.47	7.00	4.00	5.41	4.84
28C4	11.12	16.12	9.00	1.06	9.07	8.62	12.25	7.28	6.72	.62	.50	4.56	2.125	23.88	2.47	9.06	4.94	5.41	4.84
28C4	11.12	16.12	9.00	1.06	9.07	8.62	13.25	9.25	6.72	.62	.50	4.56	2.125	23.88	2.47	9.06	4.94	5.41	4.84
40C4	15.00	20.88	12.50	1.19	9.07	11.50	15.19	7.28	9.00	1.00	.50	5.50	2.625	32.75	2.47	11.88	6.62	5.41	4.84
40C4	15.00	20.88	12.50	1.19	9.07	11.50	16.12	9.25	9.00	1.00	.50	5.50	2.625	32.75	2.47	11.88	6.62	5.41	4.84
21C5	9.25	12.25	8.00	.62	10.66	6.62	11.25	9.25	9.22	.50	.50	3.25	1.500	21.75	3.15	7.00	4.00	6.91	6.47
28C5	11.12	16.12	9.00	1.06	10.66	8.62	13.25	9.25	9.22	.62	.50	4.56	2.125	25.69	3.15	9.06	4.94	6.91	6.47
40C5	15.00	20.88	12.50	1.19	10.66	11.50	16.12	9.25	9.00	1.00	.50	5.50	2.625	32.75	3.15	11.88	6.62	6.91	6.47

SIZE	AE	AF	AJ	AK	AQ	AT	RU	KEY	MOTOR FRAME
12C2	10.81	9.44	2.56	30.50	.50	2.50	2.62	19x.19x1.25	56C
16C2	10.69	9.44	2.56	32.50	.62	3.00	2.88	25x.25x1.75	56C
16C3	15.75	9.44	4.38	37.31	.62	3.00	2.88	25x.25x1.75	56C
16C3	15.75	9.32	4.38	37.19	.62	3.00	2.88	25x.25x1.75	143TC
16C3	15.75	10.75	4.38	38.62	.62	3.00	2.88	25x.25x1.75	145TC
21C3	15.88	9.44	4.38	39.57	.75	4.00	4.00	38x.38x2.50	56C
21C3	15.88	9.32	4.38	39.45	.75	4.00	4.00	38x.38x2.50	143TC
21C3	15.88	10.75	4.38	40.88	.75	4.00	4.00	38x.38x2.50	145TC
28C3	16.56	9.44	4.38	43.69	1.00	5.12	6.06	50x.50x3.50	56C
28C3	16.56	9.32	4.38	43.57	1.00	5.12	6.06	50x.50x3.50	143TC
28C3	16.56	10.75	4.38	45.00	1.00	5.12	6.06	50x.50x3.50	145TC
16C4	16.84	10.75	5.00	39.81	.62	3.00	2.88	25x.25x1.75	145TC
16C4	16.84	14.94	5.00	44.00	.62	3.00	2.88	25x.25x1.75	180TC
21C4	16.97	10.75	5.00	42.06	.75	4.00	4.00	38x.38x2.50	145TC
21C4	16.97	14.94	5.00	46.69	.75	4.00	4.00	38x.38x2.50	180TC
28C4	17.62	10.75	5.00	46.19	1.00	5.12	6.06	50x.50x3.50	145TC
28C4	17.62	14.94	5.00	50.81	1.00	5.12	6.06	50x.50x3.50	180TC
40C4	21.88	10.75	5.00	55.06	1.25	6.50	7.06	62x.62x4.00	145TC
40C4	21.88	14.94	5.00	59.69	1.25	6.50	7.06	62x.62x4.00	180TC
21C5	20.66	14.94	5.94	50.63	.75	4.00	4.00	38x.38x2.50	180TC
28C5	21.12	14.94	5.94	54.63	1.00	5.12	6.06	50x.50x3.50	180TC
40C5	23.56	14.94	5.94	61.63	1.25	6.50	7.06	62x.62x4.00	180TC



# Dimensions

With DODGE TIGEAR Single Worm, Right Angle Reducer—Handwheel N

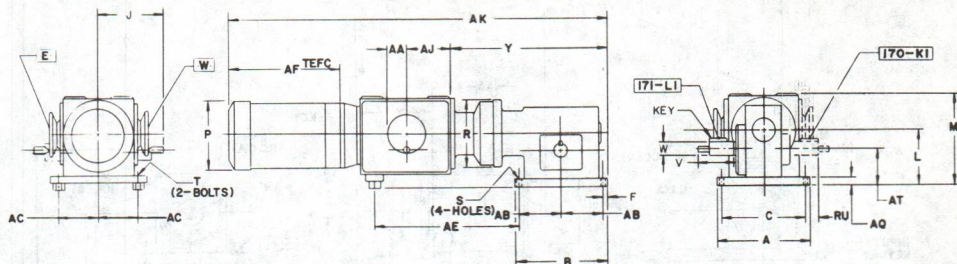


Assembly 171-LI or 170-KI

SIZE	A	B	C	F	L	M	P	R	S	T	V	W	X	Y	AA	AB	AC	AE	AF
15G2	5.19	6.12	4.31	.44	4.00	11.06	7.28	6.50	.44	.38	1.88	.75	0	10.62	1.97	2.62	2.88	8.69	9.44
17G2	5.56	6.94	4.50	.59	4.50	11.56	7.28	6.50	.44	.38	1.62	.875	0	11.56	1.97	2.88	2.88	9.06	9.44
20G2	5.66	7.28	4.69	.44	5.00	12.06	7.28	6.50	.50	.38	2.00	1.00	0	11.75	1.97	3.19	2.88	8.69	9.44
17G3	5.56	6.94	4.50	.59	4.50	12.06	7.28	6.50	.44	.50	1.62	.875	.39	12.44	1.97	2.88	3.38	14.00	9.44
17G3	5.56	6.94	4.50	.59	4.50	12.06	7.28	6.50	.44	.50	1.62	.875	.39	12.44	1.97	2.88	3.38	14.00	10.75
20G3	5.66	7.28	4.69	.44	5.00	12.56	7.28	6.50	.50	.50	2.00	1.00	.39	12.62	1.97	3.19	3.38	13.75	9.44
20G3	5.66	7.28	4.69	.44	5.00	12.56	7.28	6.50	.50	.50	2.00	1.00	.39	12.62	1.97	3.19	3.38	13.75	10.75
26G3	6.50	9.25	5.25	.62	6.31	13.84	7.28	6.50	.56	.50	2.44	1.125	.39	14.38	1.97	4.00	3.38	13.66	9.44
26G3	6.50	9.25	5.25	.62	6.31	13.84	7.28	6.50	.56	.50	2.44	1.125	.39	14.38	1.97	4.00	3.38	13.66	10.75
26G4	6.50	9.25	5.25	.62	6.31	15.38	7.28	6.50	.56	.50	2.44	1.125	.39	14.56	2.47	4.00	4.03	14.75	10.75
35G5	7.38	10.75	6.12	.62	8.50	19.19	9.25	9.00	.56	.50	3.12	1.50	.47	17.28	3.15	4.75	5.25	17.66	14.94

SIZE	AJ	AK	AQ	AT	RU	MOTOR FRAME	KEY
15G2	2.56	26.62	.62	2.50	2.16	56C	.19x.19x1.00
17G2	2.56	27.56	.75	2.75	2.09	56C	.19x.19x1.00
20G2	2.56	27.72	.75	3.00	2.38	56C	.25x.25x1.25
17G3	4.38	32.44	.75	2.75	2.09	56C	.19x.19x1.00
17G3	4.38	33.75	.75	2.75	2.09	140TC	.19x.19x1.00
20G3	4.38	32.63	.75	3.00	2.38	56C	.25x.25x1.25
20G3	4.38	33.94	.75	3.00	2.38	140TC	.25x.25x1.25
26G3	4.38	34.38	.81	3.69	3.00	56C	.25x.25x1.25
26G3	4.38	35.69	.81	3.69	3.00	140TC	.25x.25x1.25
26G4	5.00	36.88	.81	3.69	3.00	140TC	.25x.25x1.25
35G5	5.94	46.16	1.00	5.00	4.00	180TC	.38x.38x2.25

# With DODGE TIGEAR Single Worm, Right Angle Reducer—Handwheel W & E



Assembly 171-LI or 170-KI

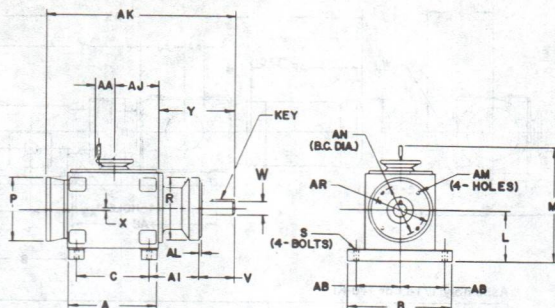
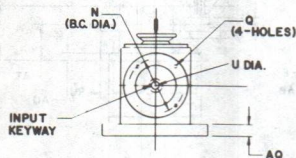
SIZE	A	B	C	F	J	L	M	P	R	S	T	V	W	Y	AA	AB	AC	AC	AE
15G2	5.19	6.12	4.31	.44	7.06	4.00	7.69	7.28	6.50	.44	.38	1.88	.75	10.62	1.97	2.62	3.84	3.34	8.69
17G2	5.56	6.94	4.50	.59	7.06	4.50	8.19	7.28	6.50	.44	.38	1.62	.875	11.56	1.97	2.88	3.84	3.34	9.06
20G2	5.66	7.28	4.69	.44	7.06	5.00	8.69	7.28	6.50	.50	.38	2.00	1.00	11.75	1.97	3.19	3.84	3.34	8.69
17G3	5.56	6.94	4.50	.59	7.50	4.50	8.19	7.28	6.50	.44	.50	1.62	.875	12.44	1.97	2.88	4.53	3.97	14.00
17G3	5.56	6.94	4.50	.59	7.50	4.50	8.19	7.28	6.50	.44	.50	1.62	.875	12.44	1.97	2.88	4.53	3.97	14.00
20G3	5.66	7.28	4.69	.44	7.50	5.00	8.69	7.28	6.50	.50	.50	2.00	1.00	12.62	1.97	3.19	4.53	3.97	13.75
20G3	5.66	7.28	4.69	.44	7.50	5.00	8.69	7.28	6.50	.50	.50	2.00	1.00	12.62	1.97	3.19	4.53	3.97	13.75
26G3	6.50	9.25	5.25	.62	7.50	6.31	9.94	7.28	6.50	.56	.50	2.44	1.125	14.38	1.97	4.00	4.53	3.97	13.66
26G3	6.50	9.25	5.25	.62	7.50	6.31	9.94	7.28	6.50	.56	.50	2.44	1.125	14.38	1.97	4.00	4.53	3.97	13.66
26G4	6.50	9.25	5.25	.62	9.06	6.31	9.94	7.28	6.50	.56	.50	2.44	1.125	14.56	2.47	4.00	5.41	4.84	14.75
35G5	7.38	10.75	6.12	.62	10.66	8.50	13.12	9.25	9.00	.56	.50	3.12	1.50	17.28	3.15	4.75	6.91	6.47	17.66

SIZE	AF	AJ	AK	AQ	AT	RU	MOTOR FRAME	KEY
15G2	9.44	2.56	26.62	.62	2.50	2.16	56C	.19x.19x1.00
17G2	9.44	2.56	27.56	.75	2.75	2.09	56C	.19x.19x1.00
20G2	9.44	2.56	27.75	.75	3.00	2.38	56C	.25x.25x1.25
17G3	9.44	4.38	32.44	.75	2.75	2.09	56C	.19x.19x1.00
17G3	10.75	4.38	33.75	.75	2.75	2.09	143TC	.19x.19x1.00
20G3	9.44	4.38	32.63	.75	3.00	2.38	56C	.25x.25x1.25
20G3	10.75	4.38	33.94	.75	3.00	2.38	143TC	.25x.25x1.25
26G3	9.44	4.38	34.38	.81	3.69	3.00	56C	.25x.25x1.25
26G3	10.75	4.38	35.69	.81	3.69	3.00	143TC	.25x.25x1.25
26G4	10.75	5.00	36.88	.81	3.69	3.00	145TC	.25x.25x1.25
35G5	14.94	5.94	46.16	1.00	5.00	4.00	180TC	.38x.38x2.25



# Dimensions

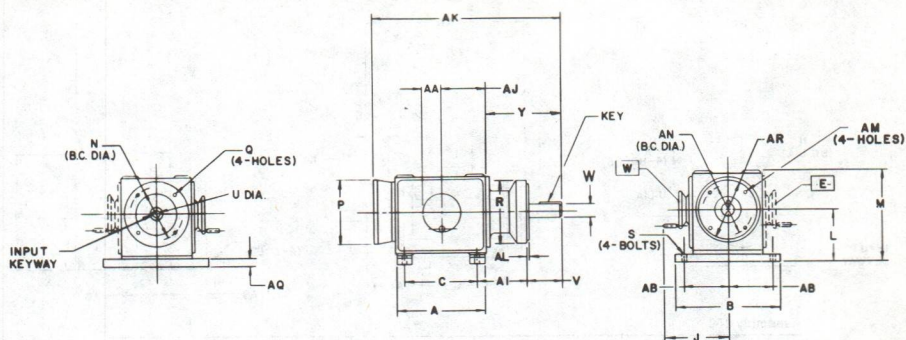
## Double C-Face Separates—Handwheel N



Assembly 300

SIZE	A	B	C	L	M	N	P	Q	R	S	INPUT U DIA	Bore KEYWAY	V	W	X	Y	AA	AB	AI
0002	4.15	6.75	3.15	3.38	10.42	5.88	6.72	.44	6.50	.38	.625	.19x.09	2.06	.625	0	5.19	1.97	2.88	3.72
0003	8.14	8.00	6.88	4.38	11.91	5.88	6.72	.44	6.62	.50	.625	.19x.09	2.06	.625	.39	6.06	1.97	3.38	4.92
0003	8.14	8.00	6.88	4.38	11.91	5.88	6.72	.44	6.62	.50	.875	.19x.09	2.12	.875	.39	6.12	1.97	3.38	4.92
0003	8.14	8.00	6.88	4.38	11.91	5.88	6.72	.44	6.62	.50	.625	.19x.09	2.12	.875	.39	6.12	1.97	3.38	4.92
0003	8.14	8.00	6.88	4.38	11.91	5.88	6.72	.44	6.62	.50	.875	.19x.09	2.06	.625	.39	6.06	1.97	3.38	4.92
0004	8.93	9.31	7.69	5.12	14.19	5.88	6.72	.44	6.62	.50	.875	.19x.09	2.12	.875	.39	6.31	2.47	4.03	5.31
0004	8.93	9.31	7.69	5.12	14.19	5.88	6.72	.44	9.00	.50	.875	.19x.09	2.62	1.125	.39	7.12	2.47	4.03	5.62
0004	8.93	9.31	7.69	5.12	14.19	7.25	8.59	.56	9.00	.50	1.125	.25x.12	2.62	1.125	.39	7.12	2.47	4.03	5.62
0004	8.93	9.31	7.69	5.12	14.19	7.25	8.59	.56	6.62	.50	1.125	.25x.12	2.12	.875	.39	6.31	2.47	4.03	5.31
0005	10.31	11.75	9.00	6.62	17.25	7.25	8.59	.56	9.00	.50	1.125	.25x.12	2.62	1.125	.47	7.12	3.15	5.25	5.91
SIZE	AJ	AK	AL	AM	AN	AQ	AR	MOTOR FRAME	C FACE	KEY									
0002	2.56	11.72	.12	3/8-16	5.88	.62	4.50	56C	56C	.19x.19x1.38									
0003	4.38	16.63	.12	3/8-16	5.88	.50	4.50	56C	56C	.19x.19x1.38									
0003	4.38	16.69	.19	3/8-16	5.88	.50	4.50	140TC	140TC	.19x.19x1.38									
0003	4.38	16.69	.19	3/8-16	5.88	.50	4.50	56C	140TC	.19x.19x1.38									
0003	4.38	16.63	.12	3/8-16	5.88	.50	4.50	140TC	56C	.19x.19x1.38									
0004	5.00	17.88	.19	3/8-16	5.88	.50	4.50	140TC	140TC	.19x.19x1.38									
0004	5.00	18.69	.25	1/2-13	7.25	.50	8.50	140TC	180TC	25x.25x1.75									
0004	5.00	19.09	.25	1/2-13	7.25	.50	8.50	180TC	180TC	25x.25x1.75									
0004	5.00	18.28	.19	3/8-16	5.88	.50	4.50	180TC	140TC	.19x.19x1.38									
0005	5.94	21.06	.25	1/2-13	7.25	.50	8.50	180TC	180TC	25x.25x1.75									

# Double C-Face Separates—Handwheel W & E



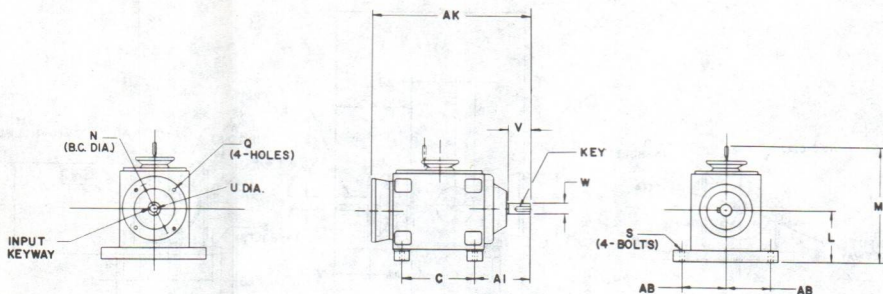
Assembly 300

Assembly 300												INPUT		BORE		V	W	Y	AA	AB	AB'
SIZE	A	B	C	J	L	M	N	P	Q	R	S	U DIA.	KEYWAY								
0002	4.15	8.19	3.15	7.06	3.75	7.12	5.88	6.72	.44	6.50	.38	.625	.19x.09	2.06	.625	5.18	1.97	3.84	3.34		
0003	8.14	8.00	6.88	7.50	3.81	7.19	5.88	6.72	.44	6.62	.50	.625	.19x.09	2.06	.625	6.06	1.97	4.53	3.97		
0003	8.14	9.75	6.88	7.50	3.81	7.19	5.88	6.72	.44	6.62	.50	.875	.19x.09	2.12	.875	6.12	1.97	4.53	3.97		
0003	8.14	8.00	6.88	7.50	3.81	7.19	5.88	6.72	.44	6.62	.50	.875	.19x.09	2.06	.625	6.06	1.97	4.53	3.97		
0003	8.14	9.75	6.88	7.50	3.81	7.19	5.88	6.72	.44	6.62	.50	.625	.19x.09	2.12	.875	6.12	1.97	4.53	3.97		
0004	8.93	11.50	7.69	9.06	4.56	7.94	5.88	6.72	.44	6.62	.50	.875	.19x.09	2.12	.875	6.31	2.47	5.41	4.84		
0004	8.93	11.50	7.69	9.06	4.56	9.06	5.88	6.72	.44	9.00	.50	.875	.19x.09	2.62	1.125	7.12	2.47	5.41	4.84		
0004	8.93	11.50	7.69	9.06	4.56	9.06	7.25	8.59	.56	9.00	.50	1.125	.25x.12	2.62	1.125	7.12	2.47	5.41	4.84		
0004	8.93	11.50	7.69	9.06	4.56	8.88	7.25	8.59	.56	6.62	.50	1.125	.25x.12	2.12	.875	6.31	2.47	5.41	4.84		
0005	10.31	14.62	9.00	10.66	5.50	10.00	7.25	8.59	.56	9.00	.50	1.125	.25x.12	2.62	1.125	7.12	3.15	6.91	6.47		
SIZE	AI	AJ	AK	AL	AM	AN	AQ	AR	"C" FACE	MOTOR FRAME	KEY										
0002	3.72	2.56	11.72	.12	3/8-16	5.88	.50	4.50	56C	56C	.19x.19x1.38										
0003	4.92	4.38	16.63	.12	3/8-16	5.88	.50	4.50	56C	56C	.19x.19x1.38										
0003	4.92	4.38	16.69	.19	3/8-16	5.88	.50	4.50	140TC	140TC	.19x.19x1.38										
0003	4.92	4.38	16.63	.12	3/8-16	5.88	.50	4.50	56C	140TC	.19x.19x1.38										
0003	4.92	4.38	16.69	.19	3/8-16	5.88	.50	4.50	140TC	56C	.19x.19x1.38										
0004	5.31	5.00	17.88	.19	3/8-16	5.88	.50	4.50	140TC	140TC	.19x.19x1.38										
0004	5.62	5.00	18.69	.25	1/2-13	7.25	.50	8.50	180TC	140TC	.25x.25x1.75										
0004	5.62	5.00	19.09	.25	1/2-13	7.25	.50	8.50	180TC	180TC	.25x.25x1.75										
0004	5.31	5.00	18.28	.19	3/8-16	5.88	.50	4.50	140TC	180TC	.19x.19x1.38										
0005	5.91	5.94	21.06	.25	1/2-13	7.25	.50	8.50	180TC	180TC	.25x.25x1.75										



# Dimensions

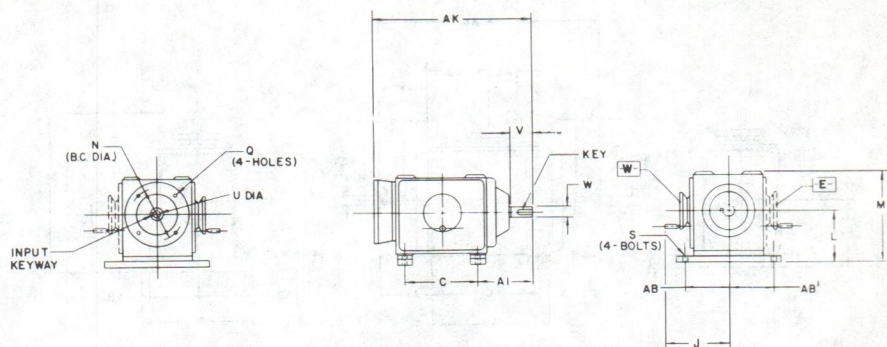
## C-Face In, Shaft Out Separates—Handwheel N



Assembly 100

SIZE	INPUT C-FACE	C	L	M	N	Q	S	INPUT U DIA.	BORE KEYWAY	V	W	AB	AI	AK	KEY
0002	56C	3.15	3.38	10.42	5.88	.44	.38	.625	.19x.09	1.88	.625	2.88	3.44	9.38	.19x.19
0003	56C	6.88	4.38	11.41	5.88	.44	.50	.625	.19x.09	2.00	.875	3.38	5.38	15.00	.19x.19
0003	140TC	6.88	4.38	11.41	5.88	.44	.50	.875	.19x.09	2.00	.875	3.38	5.38	15.00	.19x.19
0004	140TC	7.69	5.12	14.19	5.88	.44	.50	.875	.19x.09	2.00	.875	4.03	5.94	16.38	.19x.19
0004	180TC	7.69	5.12	14.19	7.25	.56	.50	1.125	.25x.12	2.00	.875	4.03	5.94	16.78	.19x.19
0005	180TC	9.00	6.62	17.25	7.25	.56	.50	1.125	.25x.12	2.50	1.125	5.25	7.12	19.64	.25x.25

# C-Face In, Shaft Out Separates—Handwheel W & E



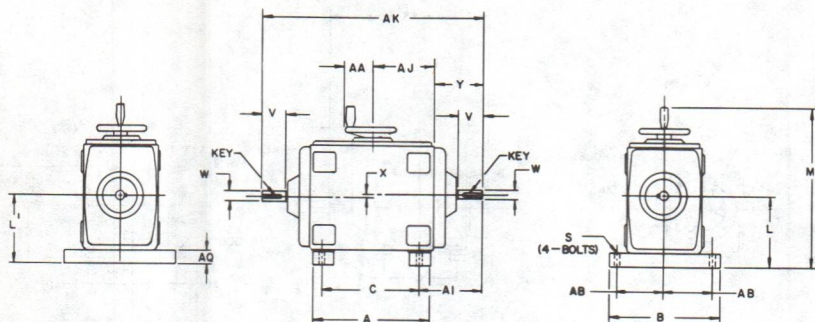
Assembly 100

SIZE	INPUT C-FACE	C	J	L	M	N	Q	S	INPUT U DIA.	BORE KEYWAY	V	W	AB	AB <sup>1</sup>	AI	AK	KEY
0002	56C	3.15	7.06	3.75	7.12	5.88	.44	.38	.625	.19x.09	1.88	.625	3.84	3.34	3.44	9.38	.19x.19
0003	56C	6.88	7.50	3.81	7.19	5.88	.44	.50	.625	.19x.09	2.00	.875	4.53	3.97	5.38	15.00	.19x.19
0003	140TC	6.88	7.50	3.81	7.19	5.88	.44	.50	.875	.19x.09	2.00	.875	4.53	3.97	5.38	15.00	.19x.19
0004	140TC	7.69	9.06	4.56	7.94	5.88	.44	.50	.875	.19x.09	2.00	.875	5.41	4.84	5.94	16.38	.19x.19
0004	180TC	7.69	9.06	4.56	8.88	7.25	.56	.50	1.125	.25x.12	2.50	1.125	6.19	6.47	7.12	19.62	.25x.25
0005	180TC	9.00	10.66	5.50	9.94	7.25	.56	.50	1.125	.25x.12	2.50	1.125	6.19	6.47	7.12	19.62	.25x.25



# Dimensions

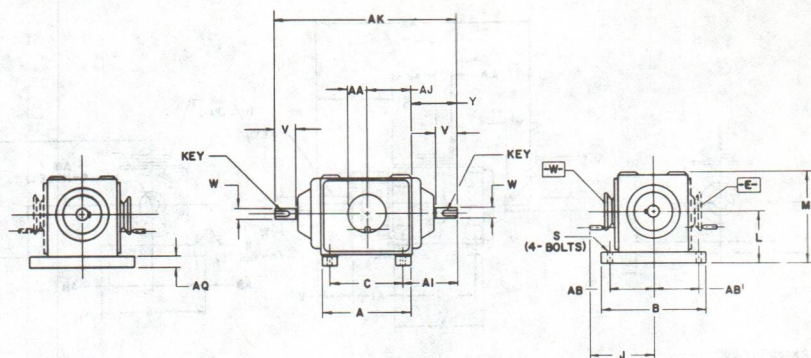
## Shaft In, Shaft Out Separates—Handwheel N



Assembly 400

SIZE	A	B	C	L	L <sup>1</sup>	M	S	V	W	X	Y	AA	AB	AI	AJ	AK	AQ	KEY
0002	4.15	6.75	3.15	3.38	3.38	10.42	.38	1.88	.625	0	2.84	1.97	2.88	3.44	2.56	10.38	.62	.19x.19
0003	8.14	8.00	6.88	4.31	4.00	11.91	.50	2.00	.875	.39	4.44	1.97	3.38	5.38	4.38	17.56	.50	.19x.19
0004	8.93	9.31	7.69	5.06	4.75	14.19	.50	2.00	.875	.39	4.81	2.47	4.03	5.94	5.00	19.56	.50	.19x.19
0005	10.31	11.75	9.00	6.62	6.15	17.25	.50	2.50	1.125	.47	5.69	3.15	5.25	7.12	5.94	23.25	.50	.25x.25

# Shaft In, Shaft Out Separates—Handwheel W & E



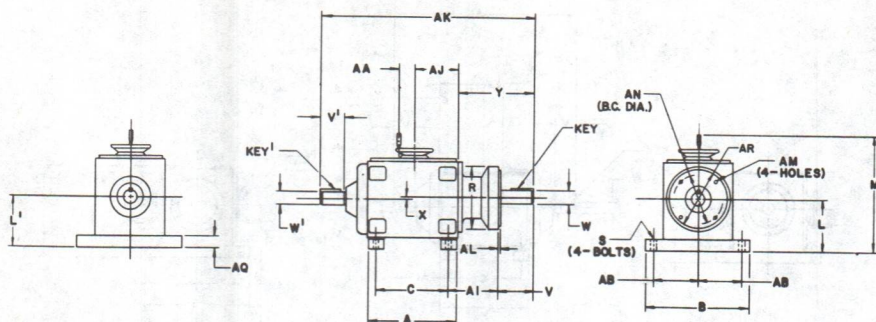
Assembly 400

SIZE	A	B	C	J	L	M	S	V	W	Y	AA	AB	AB'	AI	AJ	AK	AQ	KEY
0002	4.15	8.19	3.15	7.06	2.88	5.25	.38	1.88	.625	2.84	1.97	3.84	3.34	3.44	2.56	10.38	.50	.19x.19
0003	8.14	9.75	6.88	7.50	3.31	6.12	.50	2.00	.875	4.44	1.97	4.53	3.97	5.38	4.38	17.56	.50	.19x.19
0004	8.93	11.50	7.69	9.06	3.88	7.25	.50	2.00	.875	4.81	2.47	5.41	4.84	5.94	5.00	19.56	.50	.19x.19
0005	10.31	14.62	9.00	10.66	4.94	9.38	.50	2.50	1.125	5.69	3.15	6.9	6.47	7.12	5.94	23.25	.50	.25x.25



# Dimensions

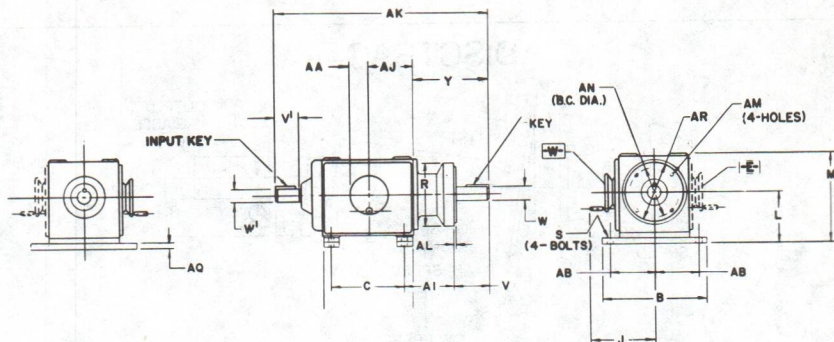
## Shaft In, C-Face Out Separates—Handwheel N



Assembly 200

SIZE	A	B	C	L	L'	M	R	S	V	W	INPUT SHAFT		X	Y	AA	AB	AI	AJ	AK
0002	4.15	6.75	3.15	3.38	3.38	10.42	6.50	.38	2.06	.625	V'	W'	0	5.19	1.97	2.88	3.72	2.56	12.75
0003	8.14	8.00	6.88	4.38	4.00	11.91	6.62	.50	2.06	.625	2.00	.875	.39	6.06	1.97	3.38	4.92	4.38	19.19
0003	8.14	8.00	6.88	4.38	4.00	11.91	6.62	.50	2.12	.875	2.00	.875	.39	6.12	1.97	3.38	4.92	4.38	19.25
0004	8.93	9.31	7.69	5.12	4.75	14.19	6.62	.50	2.12	.875	2.00	.875	.39	6.31	2.47	4.03	5.31	5.00	21.06
0004	8.93	9.31	7.69	5.12	4.75	14.19	9.00	.50	2.62	1.125	2.00	.875	.39	7.12	2.47	4.03	5.62	5.00	21.88
0005	10.31	11.75	9.00	6.62	6.15	17.25	9.00	.50	2.62	1.125	2.50	1.125	.47	7.12	3.15	5.25	5.91	5.94	24.69
SIZE	AL	AM	AN	AQ	AR	"C" FACE	KEY	INPUT	KEY'										
0002	.12	3/8-16	5.88	.62	4.50	56C	.19x.19x1.38	.19x.19											
0003	.12	3/8-16	5.88	.50	4.50	56C	.19x.19x1.38	.19x.19											
0003	.19	3/8-16	5.88	.50	4.50	140TC	.19x.19x1.38	.19x.19											
0004	.19	3/8-16	5.88	.50	4.50	140TC	.19x.19x1.38	.19x.19											
0004	.25	1/2-13	7.25	.50	8.50	180TC	.25x.25x1.75	.19x.19											
0005	.25	1/2-13	7.25	.50	8.50	180TC	.25x.25x1.75	.25x.25											

# Shaft In, C-Face Out Separates—Handwheel W & E



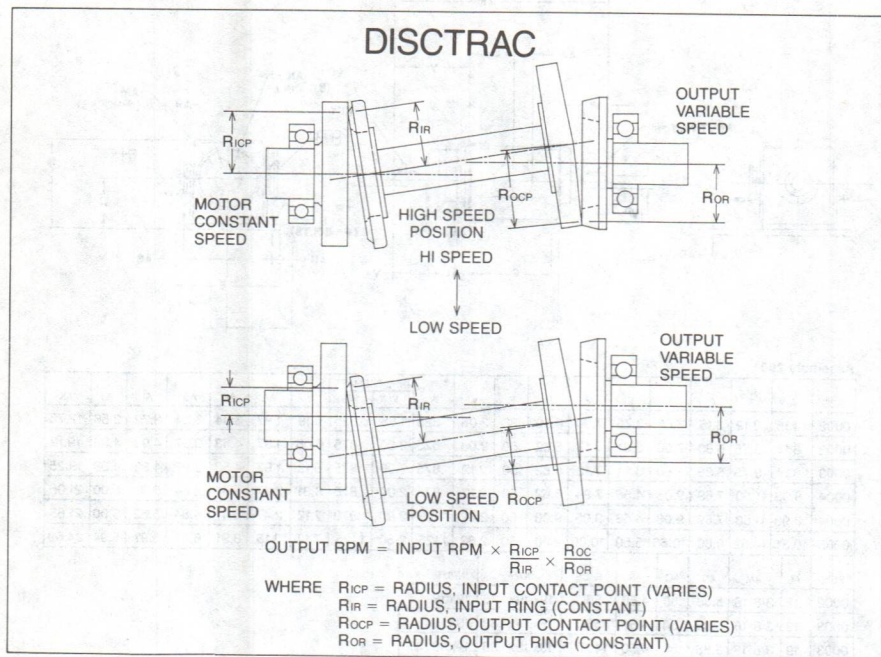
Assembly 200

Assembly 200																				
SIZE	A	B	C	J	L	M	R	S	V	W	INPUT SHAFT			Y	AA	AB	AB'	AI	AJ	AK
											V'	W'								
0002	4.15	8.19	3.15	7.06	3.75	7.00	6.50	.38	2.06	.625	1.88	.625	5.19	1.97	3.84	3.34	3.72	2.56	12.75	
0003	8.14	9.75	6.88	7.50	3.81	7.12	6.62	.50	2.06	.625	2.00	.875	6.06	1.97	4.53	3.97	4.92	4.38	19.19	
0003	8.14	9.75	6.88	7.50	3.81	7.12	6.62	.50	2.12	.875	2.00	.875	6.12	1.97	4.53	3.97	4.92	4.38	19.25	
0004	8.93	11.50	7.69	9.06	4.56	7.94	6.62	.50	2.12	.875	2.00	.875	6.31	2.47	5.41	4.84	5.31	5.00	21.06	
0004	8.93	11.50	7.69	9.06	4.56	9.06	9.00	.50	2.62	1.125	2.00	.875	7.12	2.47	5.41	4.84	5.62	5.00	21.85	
0005	10.31	14.62	9.00	10.66	5.50	10.00	9.00	.50	2.62	1.125	2.50	1.125	7.12	3.15	6.91	6.47	5.91	5.94	24.69	
SIZE	AL	AM	AN	AQ	AR	"C" FACE	KEY	INPUT KEY												
0002	.12	3/8-16	5.88	.50	4.50	56C	.19x.19x1.38	.19x.19												
0003	.12	3/8-16	5.88	.50	4.50	56C	.19x.19x1.38	.19x.19												
0003	.19	3/8-16	5.88	.50	4.50	140TC	.19x.19x1.38	.19x.19												
0004	.19	3/8-16	5.88	.50	4.50	140TC	.19x.19x1.38	.19x.19												
0004	.25	1/2-13	7.25	.50	8.50	180TC	.25x.25x1.75	.19x.19												
0005	.25	1/2-13	7.25	.50	8.50	180TC	.25x.25x1.75	.25x.25												



# DISCTRAC Speed Change

The chart below explains how speed change is accomplished.



## Specifications



### DISCTRAC™ — Specifications

The variable speed drive shall be mechanical, dry traction, disc-type as made by RELIANCE ELECTRIC COMPANY. The available speed range and the horsepower speed relationship of the drive shall be as specified (1).

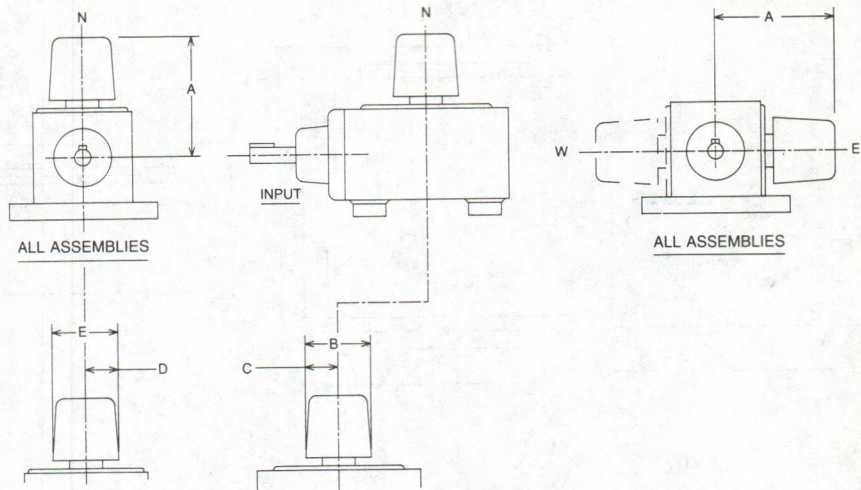
The drive case shall be corrosion resistant, made of cast iron, and totally enclosed. Only standard, readily available NEMA C Fan-Cooled motors shall be used as drive motors. The speed control shall be attained through a handwheel/electric remote control with pushbuttons. The drive shall feature a sealed lubricated torque compensating cam. All internal parts of the drive shall be accessible and replaceable without the disassembly of drive motor and gear reducer.

The complete drive system, consisting of the drive, the drive-motor, and the gear reducer shall be suitable for operation under the ambient and service conditions specified.

The complete drive system shall be manufactured and supplied by one company.

- (1) As an alternate, specify the speed range, constant torque load (if appropriate), and the torque or horsepower at the maximum speed.

# DISCTRAC ERC Dimensional Diagram

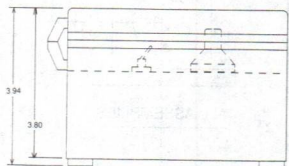
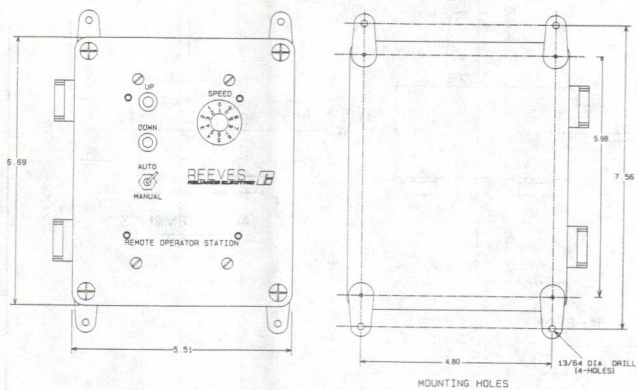


SIZE	A	B	C	D	E
0002	10.28	5.94	2.97	3.31	6.62
0003	11.19	5.94	2.97	3.31	6.62
0004	11.91	5.94	2.97	3.31	6.62
0005	13.34	5.94	2.97	3.31	6.62

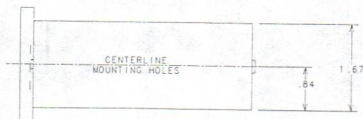
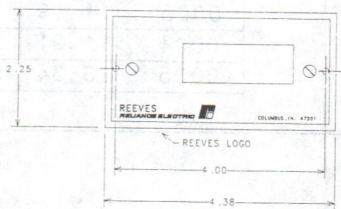
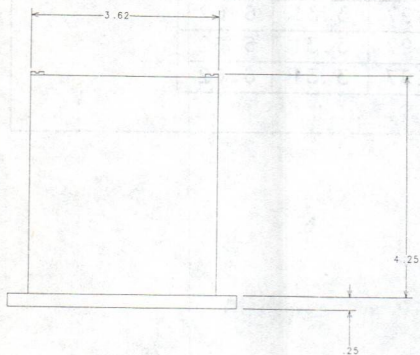


# Dimensions

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# Product Description and Features

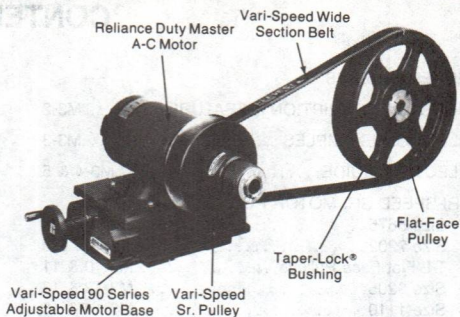
## REEVES VARI-SPEED SR. PULLEY

**Horsepower:** 1/4—15 HP

**Speed Ratio:** 3:1

**For use with flat face pulleys or companion sheaves.**

Easy to apply, easy to install and easy to maintain with snap out, snap in replaceable bushings in sizes through 10 hp. REEVES VARI-SPEED Pulleys are available in five sizes matching NEMA Motor Frames 56 through 256T. Sizes through 10 hp utilize the X-V design with Ductile Iron Discs. Periodic lubrication is eliminated and installation is fast and simple with collar lock/collet mounting.



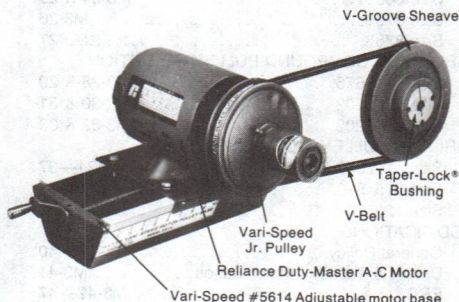
## REEVES VARI-SPEED JR. PULLEY

**Horsepower:** 1/4—1 1/2 HP

**Maximum Ratio:** 2.75:1

**For uses with standard A or B section V-belts and sheaves.**

Only one moving part makes REEVES Jr. Pulleys extra reliable and easy to maintain. Relubricable design flushes contaminants that can cause sticking or fretting corrosion. Lubricant is applied through a single zerk fitting and then distributed along the sliding shaft via a patented close groove distribution system.

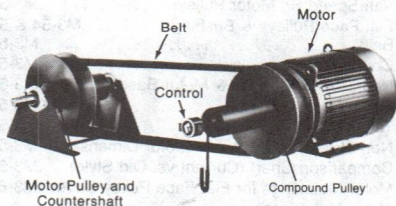


## REEVES VARI-SPEED COMPOUND DRIVE

**Horsepower:** 1/4—5 HP

**Maximum Ratio:** 9:1

For constant center distance applications. REEVES VARI-SPEED Compound Pulleys are coupled to a matching standard single-acting pulley to provide the widest speed range at the lower possible cost. Integral speed control knob provides smooth speed adjustment over the full speed range. Incorporates all of the features of REEVES single-acting pulleys, including the new X-V construction.



# Selection Examples

## SELECTION EXAMPLE: VARI-SPEED SR. PULLEY

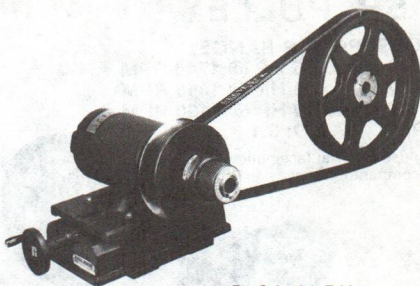
**GIVEN:** 2 HP, 1740 rpm motor, frame 145 T. Required output speeds 960/320 rpm driving to a flat face pulley.

**STEP 1:** Select REEVES VARI-SPEED motor pulley size 7202 based upon HP rating of pulley at 1740 rpm. Specify bore of pulley according to motor shaft. In this case specify  $\frac{7}{8}$ " bore.

**STEP 2:** Select proper diameter and face width of driven flat face pulley based upon required output speeds. In this case it is  $12" \times 2\frac{1}{2}"$ .

**STEP 3:** Select proper REEVES VARI-SPEED belt that corresponds to your shaft center distances. In this case use 54" through 80" pitch length belt  $1\frac{3}{16}"$  wide. (Belt numbers 103540 through 103800.)

**STEP 4:** Select proper REEVES VARI-SPEED motor base based upon frame size of motor and means of control and mounting. In this case the least expensive base is size 5614. If electric remote control or ceiling mount is required use 91.5B base.



For Selection Tables and Pricing, See Pages M3-6 through M3-19

## SELECTION EXAMPLE: VARI-SPEED JR. PULLEY

**GIVEN:**  $\frac{3}{4}$ " HP, 1150 rpm motor, frame 143T. Required output speeds, 700/280 rpm.

**STEP 1:** Select REEVES VARI-SPEED Jr. Pulley size 870 based upon HP rating of pulley at 1150 rpm. Specify bore of pulley according to motor shaft. In this case specify  $\frac{7}{8}$ " bore.

**STEP 2:** Select proper Pitch Diameter of driven sheave based upon required output speeds. In this case it is 11.0".

**STEP 3:** Select proper narrow section V-belt that corresponds to your shaft center distances. In this case use belt B-46 thru B-60.

**STEP 4:** Select proper REEVES VARI-SPEED motor base based upon frame size of motor. In this case use REEVES VARI-SPEED motor pulley base 5614, or size 91.5B base.



For Selection Tables and Pricing, See Pages M3-20 through M3-27.

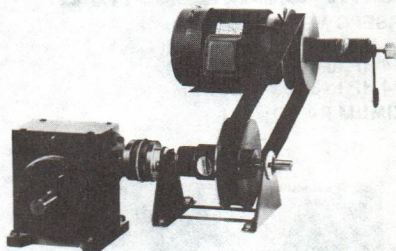
## SELECTION EXAMPLE: VARI-SPEED COMPOUND PULLEY

**GIVEN:** 5 HP, 1750 rpm motor, frame 184T. Required output speeds 4500/580 rpm. Driven load is a constant torque load of 5 hp at 4500 rpm.

**STEP 1:** Select REEVES VARI-SPEED Compound Drive size CP9205 Driver and REEVES VARI-SPEED driven pulley size 9205. The CP9205 pulley should have a bore of  $1\frac{1}{8}"$  to mate with the motor. Select the 9205 pulley with bore to mate with driven shaft ( $1"-1\frac{1}{8}"$ ) and determine if thru bore is required.

**STEP 2:** Verify that HP loads at all speeds are below curve shown. (Constant torque load will be below curve if it is 5 hp at 4500 rpm.)

**STEP 3:** Select proper REEVES VARI-SPEED belt based on shaft center distances as cataloged.



For Selection Tables and Pricing, See Pages M3-28 through M3-33.



## Selection Guide

### VARI-SPEED SR. PULLEY

#### HORSEPOWER RANGE:

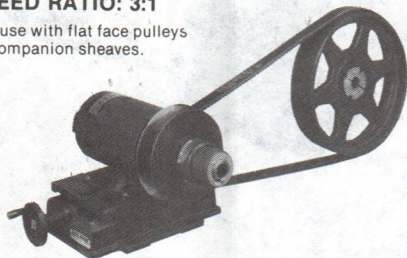
3/4 HP to 15 HP @ 1740 RPM

1/2 HP to 10 HP @ 1450 RPM

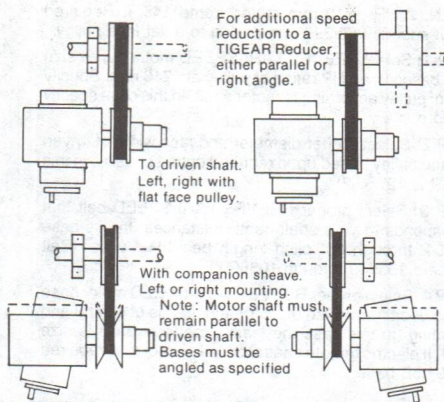
1/2 HP to 10 HP @ 1160 RPM

#### SPEED RATIO: 3:1

For use with flat face pulleys  
or companion sheaves.



#### 1 DETERMINE INSTALLATION CONFIGURATION



### VARI-SPEED JR. PULLEY

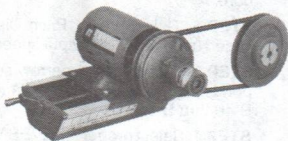
HORSEPOWER RANGE: 1/4 - 1-1/2 HP @ 1750 RPM

1/8 - 1 HP @ 1450 RPM 1/8 - 1 HP @ 1160 RPM

#### MAXIMUM RATIO:

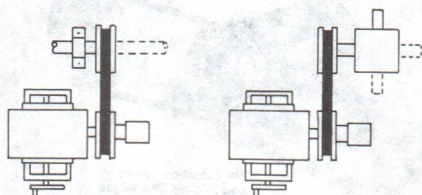
2.75:1

For use with Standard  
A or B Section  
V-Belts and  
Sheaves.



#### 1 DETERMINE INSTALLATION CONFIGURATION

Select Driven Shaft — Left or Right



### VARI-SPEED COMPOUND DRIVE

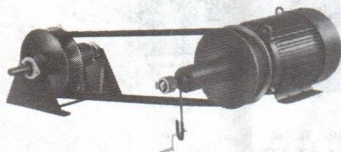
#### HORSEPOWER RANGE:

1/4 HP to 5 HP @ 1740 RPM

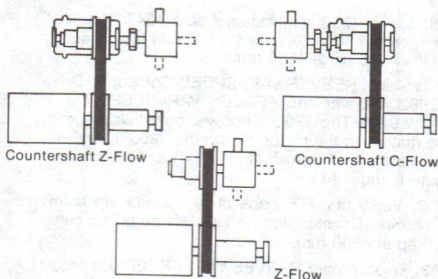
1/4 HP to 3 HP @ 1450 RPM

1/4 HP to 3HP @ 1160 RPM

#### MAXIMUM RATIO: 9:1

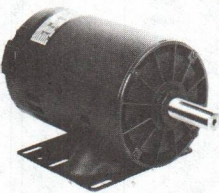


#### 1 DETERMINE INSTALLATION CONFIGURATION



## 2 DETERMINE INPUT HORSEPOWER & RPM.

Select a Vari-Speed pulley to meet these requirements from pages M3-6 through M3-19.



## 3 DETERMINE REQUIRED DRIVEN SHAFT SPEEDS.

Select the proper diameter flat face pulley to give the desired speeds.



## 4 DETERMINE MAXIMUM & MINIMUM CENTER DISTANCES BETWEEN MOTOR & DRIVEN SHAFT

Select the nominal belt pitch length from the charts.

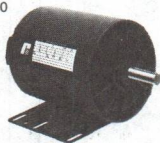
## 5 DETERMINE PROPER BASE SIZE & CONTROL REQUIREMENTS.

Motor base size is determined by motor frame. Select from pages M3-10 through M3-19.



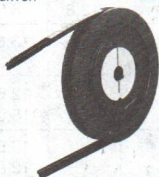
## 2 DETERMINE INPUT HORSEPOWER & RPM

Select a Vari-Speed Jr. pulley to meet these requirements from pages M3-20 through M3-27.



## 3 DETERMINE REQUIRED DRIVEN SHAFT SPEEDS.

Select the correct pitch diameter of the driven sheave.

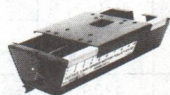


## 4 DETERMINE MAXIMUM & MINIMUM CENTER DISTANCES BETWEEN MOTOR & DRIVEN SHAFT.

Select a standard V-belt number.

## 5 DETERMINE PROPER BASE SIZE & CONTROL REQUIREMENTS.

Motor base size is determined by motor frame.



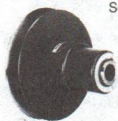
## 2 DETERMINE INPUT HORSEPOWER & RPM.

Select a Vari-Speed Compound drive to meet these requirements from pages M3-28 through M3-33.



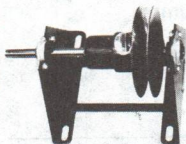
## 3 DETERMINE REQUIRED DRIVEN SHAFT SPEEDS.

Select the proper Compound drive to meet these requirements. If the speeds are not within those shown on pages M3-28 through M3-33 select a countershaft or reducer to provide the required speeds.



## 4 COUNTERSHAFT

Select a countershaft if required.



## 5 DETERMINE CENTER DISTANCES BETWEEN MOTOR AND DRIVEN SHAFT.

Select the nominal belt pitch length from the charts on each page.



## 6 VERIFICATION.

Using the Rating Curves verify that the horsepower requirements of the load at high and low speeds are within the acceptable ratings of the compound drive selected.



# Selection Tables

## X-V DESIGN SIZE 5675 WITH FLAT FACE PULLEY

### HP RATINGS

1/4, 1/2, 3/4 HP @ 1740 rpm

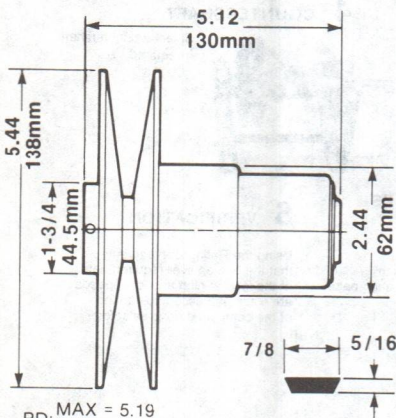
1/4, 1/2 HP @ 1450 rpm

1/4, 1/2 HP @ 1160 rpm

### CONSTANT TORQUE — 3:1 SPEED RANGE

Output Speeds		Flat Face Pulley	Nominal Belt Pitch Length					
1740 Motor rpm	1160 Motor rpm		30	36	42	48	54	60
		Dia.	Shaft Center Distance					
1680 560	1119 373	5	6.6 9.2	9.6 12.3	12.6 15.3	15.6 18.3	18.6 21.3	21.6 24.3
1416 472	945 315	6		8.8 11.4	11.8 14.4	14.8 17.5	17.8 20.5	20.8 23.5
1224 408	816 272	7		8.0 10.5	11.0 13.5	14.0 16.6	17.0 19.6	20.0 22.7
1077 359	720 240	8			10.2 12.6	13.2 15.7	16.2 18.8	19.2 21.8
963 321	642 214	9			9.3 11.6	12.3 14.8	15.4 17.9	18.4 20.9
870 290	582 194	10				11.4 13.8	14.5 16.9	17.5 20.0
795 265	528 176	11				10.5 12.8	13.6 16.0	16.6 19.1
729 243	486 162	12					12.6 15.0	15.4 18.1
627 209	420 140	14					10.6 12.8	13.8 16.1

Recommended Face Width 2-1/2"



PD: MAX = 5.19  
MIN = 1.73

## Pricing and Stock No.'s

### SIZE 5675 SR. PULLEY—DISCOUNT—D-49c

Stock Bore	Stock No.	List Price	Approx. Wt.
1/2	H95500	\$145	6
5/8	H95501	145	6
3/4	H95502	145	6

### BELTS FOR 5675 SR. PULLEY—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
30"	014300	H95123	\$30.50	4
36"	014360	H95124	32.00	4
42"	014420	H95125	35.50	4
48"	014480	H95126	37.00	4
54"	014540	H95127	41.00	4
60"	014600	H95128	44.50	4



# Selection Tables

## X-V DESIGN

## HP RATINGS

### SIZE 7202 WITH FLAT FACE PULLEY

1, 1½, 2 HP @ 1740 rpm

1, 1½ HP @ 1450 rpm

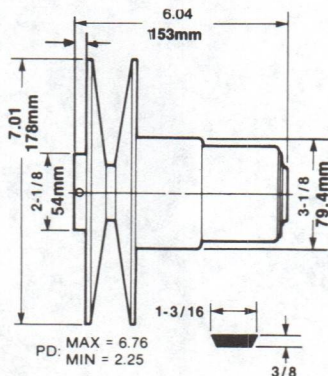
1, 1½ HP @ 1160 rpm

### CONSTANT TORQUE — 3:1 SPEED RANGE

Output Speeds		Flat Face Pulley	Nominal Belt Pitch Length									
1740 Motor rpm	1160 Motor rpm		36	38	42	45	48	54	60	66	72	80
		Dia.	Shaft Center Distance									
1809 603	1206 402	6 (1)	7.5 10.9	8.5 11.9	10.5 13.9	12.0 15.4	13.5 16.9	16.5 19.9	19.5 22.9	22.5 25.9	25.5 28.9	29.5 33.0
1569 523	1047 349	7 (1)		7.7 11.0	9.7 13.0	11.2 14.6	12.7 16.0	15.7 19.1	18.7 22.1	21.7 25.1	24.7 28.2	28.7 32.2
1383 461	924 308	8			8.9 12.1	10.4 13.7	11.9 15.2	14.9 18.2	17.9 21.2	20.9 24.3	23.9 27.3	27.9 31.4
1239 413	825 275	9				9.5 12.9	11.0 14.2	14.0 17.3	17.0 20.3	20.0 23.4	23.0 26.4	27.0 30.5
1119 373	747 249	10					10.2 13.3	13.2 16.4	16.2 19.4	19.2 22.5	22.2 25.5	26.2 29.7
1023 341	681 227	11						12.3 15.5	15.4 18.6	18.4 21.6	21.4 24.7	25.4 28.8
942 314	627 209	12						11.4 14.5	14.5 17.6	17.5 20.7	20.5 23.8	24.5 27.9
810 270	540 180	14							12.6 15.6	15.7 18.8	18.8 21.9	22.9 26.1
714 238	474 158	16								13.8 16.7	16.9 20.0	21.0 24.2
636 212	423 141	18									14.9 17.8	19.2 22.2
573 191	384 128	20										17.1 20.0

Recommended Face Width 2-1/2"

(1) 6" and 7" diameter flat face pulleys are not recommended for 2 hp applications.



## Pricing and Stock No.'s

### SIZE 7202 SR. PULLEY—DISCOUNT—D-49c

Stock Bore	Stock No.	List Price	Approx. Wt.
$\frac{5}{8}$	H95503	\$208	14
$\frac{3}{4}$	H95504	208	14
$\frac{7}{8}$	H95505	208	14
1	H95506	208	14

### BELTS FOR 7202 SR. PULLEY—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
32"	103317	H95133	\$49.50	4
36"	103360	H95134	51.00	4
38"	103380	H95135	52.50	4
42"	103420	H95137	54.00	6
45"	103450	H95139	54.50	6
48"	103480	H95140	55.50	6
54"	103540	H95142	58.00	6
60"	103600	H95143	61.00	6
66"	103660	H95145	64.00	6
72"	103720	H95148	69.00	6
80"	103800	H95149	76.50	8



## Pricing and Stock No.'s

### TL FLAT FACE PULLEY—DISCOUNT—D-49h

For Use With 5675 and 7202			Rim With Bushing		Rim Only	
Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Ordering Number	List Price	Ordering Number	List Price
5	2.5	2012	Specify Rim	\$ 81	H95057	\$ 71
6	2.5	2012	Number and	83	H95058	73
7	2.5	2012	Ordering	87	H95059	77
8	2.5	2012	Number of	94	H95060	84
9	2.5	2012	Appropriate	100	H95061	90
10	2.5	2012	Bushing from	108	H95062	98
11	2.5	2012	Tables at Right	111	H95063	101
12	2.5	2012	→	117	H95064	107
14	2.5	3020		133	H95065	115
16	2.5	3020		152	H95066	134
18	2.5	3020		175	H95067	157
20	2.5	3020		238	H95068	220

### MOTOR PULLEY BASES—DISCOUNT—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
91-B	56, 66	H95043	\$247	18
91.5B	182, 184, 143T, 145T, 182T	H95044	274	24
92-B	213, 215, 182T, 184T, 213T	H95045	323	35
5614	48, 56, 145T	H95221	120	22
TEL-1	48, 56, 140T	H95048	175	11

### MOTOR PULLEY BASE

#### With Standard Electric Remove Control (1)—DISCOUNT—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	91-B-EMC	H95215	\$1451	40
Standard	110 — 125	91.5-B-EMC	H95216	1477	42
Standard	110 — 125	92-B-EMC	H95217	1526	100

(1) With P/B Station and O/L Disconnect Switch.

**SIZE 2012 TL BUSHINGS****\$10 List Ea. Approx. Wt. 2#**

Bore	Stock No.	Bore	Stock No.
$\frac{1}{2}$	H95085	$\frac{1}{4}$	H95094
$\frac{5}{8}$	H95086	$\frac{3}{8}$	H95095
$\frac{11}{16}$	H95087	$\frac{17}{16}$	H95096
$\frac{3}{4}$	H95088	$\frac{1}{2}$	H95097
$\frac{7}{8}$	H95089	$\frac{15}{8}$	H95098
$\frac{15}{16}$	H95090	$\frac{11}{16}$	H95099
1	H95091	$\frac{13}{4}$	H95100
$\frac{11}{8}$	H95092	$\frac{17}{8}$	H95101
$\frac{13}{16}$	H95093	$\frac{115}{16}$	H95102

**SIZE 3020 TL BUSHINGS****\$18.50 List Ea. Approx. Wt. 6#**

Bore	Stock No.	Bore	Stock No.
$\frac{15}{16}$	H95105	$\frac{15}{8}$	H95114
1	H95106	$\frac{111}{16}$	H95115
$\frac{11}{8}$	H95107	$\frac{13}{4}$	H95116
$\frac{13}{16}$	H95108	$\frac{17}{8}$	H95117
$\frac{1}{4}$	H95109	$\frac{115}{16}$	H95118
$\frac{5}{16}$	H95110	2	H95119
$\frac{13}{8}$	H95111	$\frac{23}{16}$	H95120
$\frac{17}{16}$	H95112	$\frac{21}{4}$	H95121
$\frac{1}{2}$	H95113	$\frac{27}{16}$	H95122



# Selection Tables

## SIZE 9205 X-V DESIGN WITH FLAT FACE PULLEY

### HP RATINGS

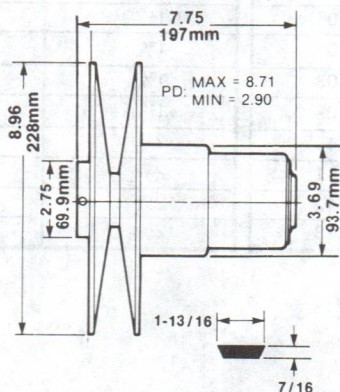
3, 5 HP @ 1740 rpm

2, 3 HP @ 1450 rpm

1½, 2, 3 @ 1160 rpm

### CONSTANT TORQUE — 3:1 SPEED RANGE

Output Speeds		Flat Face Pulley	Nominal Belt Pitch Length													
1740 Motor rpm	1160 Motor rpm		52	54	56	58	60	62	64	68	72	77	83	85	90	
		Dia.	Shaft Center Distance													
1425 475	951 317	Recommended Face Width 3-1/4"	10	10.6 14.8	11.6 15.9	12.6 16.9	13.9 17.9	14.6 18.9	15.6 20.0	16.6 20.9	18.6 23.0	20.6 25.0	23.1 27.6	25.6 30.1	27.1 31.6	29.6 34.1
1305 435	870 290		11		10.8 14.9	11.8 16.0	12.8 17.0	13.8 18.0	14.8 19.1	15.8 20.1	17.8 22.1	19.8 24.2	22.3 26.7	24.8 29.2	26.3 30.7	28.8 33.3
1200 400	801 267		12			10.9 15.0	11.9 16.0	12.9 17.1	14.0 19.1	15.0 19.1	17.0 21.2	19.0 23.3	21.5 25.8	24.0 28.3	25.5 29.9	28.0 32.4
1035 345	690 230		14						12.2 16.1	13.2 17.2	15.2 19.3	17.3 21.4	19.8 24.0	22.3 26.5	23.8 28.1	26.4 30.6
912 304	609 203		16								13.4 17.3	15.5 19.4	18.0 22.1	20.6 24.7	22.1 26.2	24.6 28.8
813 271	543 181		18										16.1 20.0	18.7 22.7	20.3 24.3	22.9 26.9
735 245	489 163		20											16.8 20.6	18.4 22.2	21.0 24.9
669 223	447 149		22												16.3 20.0	19.0 22.8



## Pricing and Stock No.'s

### SIZE 9205

#### SR. PULLEY—DISCOUNT—D-49c

Pulley Size	Bore Diameter (Inches)	Stock No.	List Price	Approx. Wt.
9205	$\frac{7}{8}$	H95507	\$290	24
9205	1	H95508	290	24
9205	$1\frac{1}{8}$	H95509	290	24
9205	$1\frac{3}{8}$	H95510	290	24

#### BELTS FOR 9205 SR. PULLEY—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
48"	113480	H95170	\$89.00	8
52"	113515	H95171	91.50	9
54"	113540	H95172	94.00	9
57"	113568	H95173	94.50	9
58"	113580	H95174	95.50	9
60"	113600	H95175	97.00	9
62"	113623	H95177	97.50	9

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
64"	113640	H95178	\$ 98.50	9
68"	113680	H95180	101.50	9
72"	113720	H95182	104.50	9
77"	113770	H95183	110.00	9
83"	113827	H95184	113.50	9
85"	113849	H95185	115.00	9
90"	113900	H95187	119.50	9



# Selection Tables

## X-V DESIGN

## HP RATINGS

### SIZE 1110 WITH FLAT FACE PULLEY

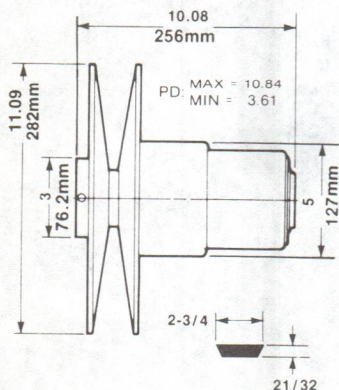
7½, 10 HP @ 1740 rpm

5, 7½ HP @ 1450 rpm

5, 7½ HP @ 1160 rpm

### CONSTANT TORQUE — 3:1 SPEED RANGE

Output Speeds		Flat Face Pulley	Nominal Belt Pitch Length							
1740 Motor rpm	1160 Motor rpm		66	72	78	84	90	96	102	108
		Dia.	Shaft Center Distance							
1443 481	963 321	12	14.1 19.3	17.1 22.4	20.1 25.5	23.1 28.5	26.1 31.5	29.1 34.6	32.1 37.6	35.1 40.6
1251 417	834 278	14		15.4 20.5	18.5 23.6	21.5 26.7	24.5 29.8	27.5 32.8	30.5 35.9	33.5 38.9
1104 368	738 246	16			16.7 21.7	19.8 24.8	22.8 27.9	25.8 31.0	28.8 34.1	31.9 37.1
990 330	660 220	18			14.9 19.7	18.0 22.9	21.0 26.0	24.1 29.2	27.1 32.3	30.2 35.3
897 299	597 199	20				16.1 20.8	19.2 24.0	22.3 27.2	25.4 30.4	28.4 33.5
819 273	546 182	22					17.2 21.9	20.4 25.2	23.5 28.4	26.6 31.5
753 251	501 167	24						18.4 23.0	21.6 26.3	24.7 29.5
696 232	465 155	26							19.5 24.0	22.7 27.4
648 216	432 144	28								20.6 25.1



# Pricing and Stock No.'s

DISCOUNT—RE-12b

## SIZES 1110 AND 912-15

### SR. PULLEYS—DISCOUNT—D-49c

Pulley Size	Bore Diameter	Stock No.	List Price	Approx. Wt.
1110	1 $\frac{1}{8}$	H95511	\$508	40
1110	1 $\frac{1}{4}$	H95512	508	40
1110	1 $\frac{3}{8}$	H95513	508	40
1110	1 $\frac{5}{8}$	H95514	508	40
912-15	1 $\frac{5}{8}$	H95042	581	49

### BELTS FOR 1110 AND 912-15 SR. PULLEY—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
66"	212660	H95202	\$211.50	10
72"	212720	H95204	229.50	10
78"	212780	H95205	250.00	10
84"	212840	H95206	268.50	10
90"	212900	H95207	285.50	10
96"	212960	H95208	307.50	10
102"	2121020	H95209	326.00	10
108"	2121080	H95210	346.00	10



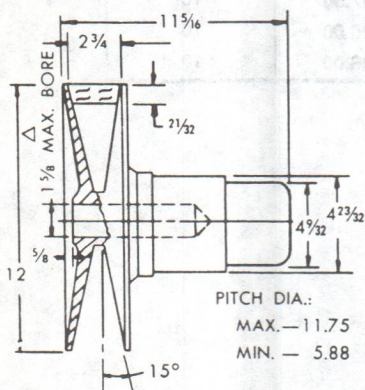
# Selection Tables

## GREASE LUBRICATED SIZE 912-15 WITH FLAT FACE PULLEY

HP RATINGS  
15 HP @ 1740 rpm  
10 HP @ 1160 rpm

### CONSTANT TORQUE — 2:1 SPEED RANGE

Output Speeds		Flat Face Pulley		Nominal Belt Pitch Length				
1740 Motor rpm	1160 Motor rpm			84	90	96	102	108
			Dia.	Shaft Center Distance				
1065 532	705 352	Recommended Face Width 4-1/4"	18	18.1 22.1	21.1 25.2	24.1 28.3	27.2 31.3	30.2 34.6
960 480	645 322		20	16.2 20.0	19.3 23.2	22.4 26.4	25.4 29.5	28.5 32.8
885 442	585 292		22	— —	17.4 21.1	20.5 24.4	23.6 27.5	26.7 31.0
810 405	540 270		24	— —	— —	18.5 22.3	21.7 25.5	24.8 29.0
750 375	495 247		26	— —	— —	— —	19.6 23.4	23.9 27.0



## SIZES 1110 AND 912-15

### SR. PULLEYS—DISCOUNT—D-49c

Pulley Size	Bore Diameter	Stock No.	List Price	Approx. Wt.
1110	1 $\frac{1}{8}$	H95511	\$508	40
1110	1 $\frac{1}{4}$	H95512	508	40
1110	1 $\frac{3}{8}$	H95513	508	40
1110	1 $\frac{5}{8}$	H95514	508	40
912-15	1 $\frac{5}{8}$	H95042	581	49

### BELTS FOR 1110 AND 912-15 SR. PULLEY—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
66"	212660	H95202	\$211.50	10
72"	212720	H95204	229.50	10
78"	212780	H95205	250.00	10
84"	212840	H95206	268.50	10
90"	212900	H95207	285.50	10
96"	212960	H95208	307.50	10
102"	2121020	H95209	326.00	10
108"	2121080	H95210	346.00	10



# Pricing and Stock No.'s

## TL FLAT FACE PULLEYS

### FOR SIZE 9205—DISCOUNT—D-49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	With Bushing		Rim Only		Approx. Wt.
			Ordering Number	List Price	Ordering Number	List Price	
10	3.25	2012	Specify Rim	\$115	H95069	\$105	20
11	3.25	2012	Number and	125	H95070	115	22
12	3.25	2012	Ordering	134	H95071	124	24
14	3.25	3020	Number of	152	H95072	134	34
16	3.25	3020	Appropriate Bushing from Tables at Right →	167	H95073	149	43
18	3.25	3020		200	H95074	182	48
20	3.25	3020		257	H95075	239	58
22	3.25	3020		315	H95076	297	67
24	3.25	3020		382	H95077	364	72

### TL FLAT FACE PULLEYS FOR SIZES 1110 AND 912-15—DISCOUNT—D-49h

Diameter (Inches)	Face Width (Inches)	Type Bushing Required	With Bushing		Rim Only		Approx. Wt.
			Stock Number	List Price	Stock Number	List Price	
12	4.25	3020	Specify Rim	\$156	H95078	\$138	32
14	4.25	3020	Number and	179	H95079	161	40
16	4.25	3020	Ordering	234	H95080	216	48
18	4.25	3020	Number of	261	H95081	243	53
20	4.25	3020	Appropriate Bushing from Tables at Right	286	H95082	268	69
22	4.25	3020		336	H95083	318	85
24	4.25	3020		410	H95084	392	93
26	4.25	QD*	Type "E"	—	H95219	1170	110
28	4.25	QD*	Bushing	—	H95220	1240	130

### MOTOR PULLEY BASES—DISCOUNT—D-49c

Base Size	Accepts Motor Frames	Stock No.	List Price	Approx. Wt.
92-B	213, 215, 182T, 184T, 213T	H95045	\$323	35
93-B1	254U, 256U, 284U, 213T, 215T, 254T, 256T	H95046	651	80

**SIZE 2012 TL BUSHINGS**  
**\$10 List Ea. Approx. Wt. 2#—DISCOUNT—D-49i**

Bushing Bore	Stock No.	Bushing Bore	Stock No.
$\frac{1}{2}$	H95085	$1\frac{1}{4}$	<b>H95094</b>
$\frac{5}{8}$	H95086	$1\frac{3}{8}$	H95095
$1\frac{1}{16}$	H95087	$1\frac{7}{16}$	H95096
$\frac{3}{4}$	H95088	$1\frac{1}{2}$	H95097
$\frac{7}{8}$	H95089	$1\frac{5}{8}$	H95098
$1\frac{5}{16}$	H95090	$1\frac{11}{16}$	H95099
1	H95091	$1\frac{3}{4}$	H95100
$1\frac{1}{8}$	H95092	$1\frac{7}{8}$	H95101
$1\frac{3}{16}$	H95093	$1\frac{15}{16}$	H95102

**SIZE 3020 TL BUSHINGS**  
**\$18.50 List Ea. Approx. Wt. 6#—DISCOUNT—D-49i**

Bushing Bore	Stock No.	Bushing Bore	Stock No.
$1\frac{5}{16}$	H95105	$1\frac{5}{8}$	H95114
1	H95106	$1\frac{11}{16}$	H95115
$1\frac{1}{8}$	H95107	$1\frac{3}{4}$	H95116
$1\frac{3}{16}$	H59108	$1\frac{7}{8}$	H95117
$1\frac{1}{4}$	H95109	$1\frac{15}{16}$	H95118
$1\frac{5}{16}$	H95110	2	H95119
$1\frac{3}{8}$	H95111	$2\frac{3}{16}$	H95120
$1\frac{7}{16}$	H95112	$2\frac{1}{4}$	H95121
$1\frac{1}{2}$	H95113	$2\frac{7}{16}$	H95122

**MOTOR PULLEY BASE**  
**WITH STANDARD ELECTRIC REMOTE CONTROL (1)—DISCOUNT—D-49c**

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	92-B-EMC	H95217	<b>\$1526</b>	100
Standard	110 — 125	93-B1-EMC	H95218	<b>1778</b>	115

(1) With P.B. Station and O/L Disconnect Switch.



# Selection, Pricing, Stock No.'s

## SIZE 830

OUTPUT SPEEDS MAX. TO MIN. RPM		P.D. DRIVEN SHEAVE	STANDARD V-BELT NUMBER											
1740 RPM MOTOR	1160 RPM MOTOR		A-26	A-31	A-33	A-35	A-38	A-42	A-46	A-48	A-51	A-53	A-55	A-60
			MINIMUM TO MAXIMUM CENTER DISTANCES BETWEEN DRIVING AND DRIVEN SHAFTS											
1965 1125	1305 750	3.0	8.6 9.8	11.1 12.3	12.1 13.3	13.1 14.3	14.6 15.7	16.6 17.7	18.6 19.7	19.6 20.7	21.1 22.2	22.1 23.2	23.1 24.2	25.6 26.7
1850 1060	1225 700	3.2	8.5 9.6	11.0 12.1	12.0 13.1	13.0 14.1	14.5 15.1	16.5 17.6	18.5 19.6	19.5 20.6	21.0 22.1	22.0 23.1	23.0 24.1	25.5 26.6
1740 990	1150 660	3.4	8.3 9.4	10.8 11.9	11.8 12.9	12.8 13.9	14.3 15.4	16.3 17.4	18.3 19.4	19.3 20.4	20.8 21.9	21.8 22.9	22.8 23.9	25.3 26.4
1640 940	1085 620	3.6	8.2 9.3	10.7 11.8	11.7 12.8	12.7 13.8	14.2 15.3	16.2 17.3	18.2 19.3	19.2 20.3	20.7 21.8	21.7 22.8	22.7 23.8	25.2 26.3
1555 890	1030 590	3.8	8.0 9.1	10.5 11.6	11.5 12.6	12.5 13.6	14.0 15.1	16.0 17.1	18.0 19.1	19.0 20.1	20.5 21.6	21.5 22.6	22.5 23.6	25.0 26.1
1480 845	980 560	4.0	7.8 8.9	10.3 11.4	11.3 12.4	12.3 13.4	13.8 14.9	15.8 16.9	17.8 18.9	18.8 19.9	20.3 21.4	21.3 22.4	22.3 23.4	24.8 25.9
1410 810	930 530	4.2	7.7 8.8	10.2 11.3	11.2 12.3	12.2 13.3	13.7 14.8	15.7 16.8	17.7 18.8	18.7 19.8	20.2 21.3	21.2 22.3	22.2 23.3	24.7 25.8
1340 770	890 510	4.4	7.5 8.6	10.0 11.1	11.0 12.1	12.0 13.1	13.5 14.6	15.5 16.6	17.5 18.6	18.5 19.6	20.0 21.1	21.0 22.1	22.0 23.1	24.5 25.6
1285 735	850 490	4.6	7.4 8.4	9.9 10.9	10.9 11.9	11.9 12.9	13.4 14.4	15.4 16.4	17.4 18.4	18.4 19.4	19.9 20.9	20.9 21.9	21.9 22.9	24.4 25.4
1230 700	815 465	4.8	7.2 8.2	9.7 10.7	10.7 11.7	11.7 12.7	13.2 14.2	15.2 16.2	17.2 18.2	18.2 19.2	19.7 20.7	20.7 21.7	21.7 22.7	24.2 25.2
1180 680	785 450	5.0	7.0 8.1	9.5 10.6	10.5 11.6	11.5 12.6	13.0 14.1	15.0 16.1	17.0 18.1	18.0 19.1	19.5 20.6	20.5 21.6	21.5 22.6	24.0 25.1
1135 650	750 430	5.2	6.9 7.9	9.4 10.4	10.4 11.4	11.4 12.4	12.9 13.9	14.9 15.9	16.9 17.9	17.9 18.9	19.4 20.4	20.4 21.4	21.4 22.4	23.9 24.9
1095 625	725 415	5.4	6.7 7.7	9.2 10.2	10.2 11.2	11.2 12.2	12.7 13.7	14.7 15.7	16.7 17.7	17.7 18.8	19.2 20.3	20.2 21.3	21.2 22.3	23.7 24.8
1055 600	700 400	5.6	6.5 7.5	9.0 10.0	10.0 11.0	11.0 12.0	12.5 13.5	14.5 15.6	16.5 17.6	17.5 18.6	19.0 20.1	20.0 21.1	21.0 22.1	23.6 24.6
1020 580	675 385	5.8	6.3 7.3	8.8 9.8	9.8 10.9	10.9 11.9	12.4 13.4	14.4 15.4	16.4 17.4	17.4 18.4	18.9 19.9	19.9 20.9	20.9 21.9	23.4 24.4
985 560	655 375	6.0	6.1 7.1	8.7 9.7	9.7 10.7	10.7 11.7	12.2 13.2	14.2 15.2	16.2 17.2	17.2 18.2	18.7 19.7	19.7 20.7	20.7 21.8	23.2 24.3
955 545	630 360	6.2	6.0 6.9	8.5 9.5	9.5 10.5	10.5 11.5	12.0 13.0	14.1 15.1	16.1 17.1	17.1 18.1	18.6 19.6	19.6 20.6	20.6 21.6	23.1 24.1
920 530	610 350	6.4	5.8 6.7	8.3 9.3	9.3 10.4	10.4 11.4	11.9 12.9	13.9 14.9	15.9 16.9	16.9 17.9	18.4 19.4	19.4 20.4	20.4 21.4	22.9 24.0
845 485	560 320	7.0	... ...	7.8 8.8	8.8 9.8	9.8 10.8	11.4 12.4	13.4 14.4	15.4 16.4	16.4 17.4	17.9 18.9	18.9 19.9	19.9 20.9	22.4 23.4
720 415	480 275	8.2	... ...	6.6 7.5	7.7 8.6	8.7 9.7	10.3 11.2	12.3 13.3	14.4 15.4	15.4 16.4	16.9 17.9	17.9 18.9	18.9 19.9	21.4 22.3
655 375	435 245	9.0	... ...	... ...	6.9 7.8	7.9 8.9	9.5 10.5	11.6 12.5	13.6 14.6	14.6 15.6	16.2 17.2	17.2 18.2	18.2 19.2	20.7 21.7
560 315	370 210	10.6	... ...	... ...	... ...	... ...	7.8 8.7	10.0 10.9	12.1 13.1	13.2 14.1	14.7 15.7	15.7 16.7	16.8 17.8	19.3 20.3
495 280	325 185	12.0	... ...	... ...	... ...	... ...	... ...	8.5 9.4	10.7 11.6	11.7 12.7	13.4 14.3	14.4 15.4	15.5 16.4	18.0 19.0

# **SIZE 830 JR. PULLEY**

**DISCOUNT—D-49c**

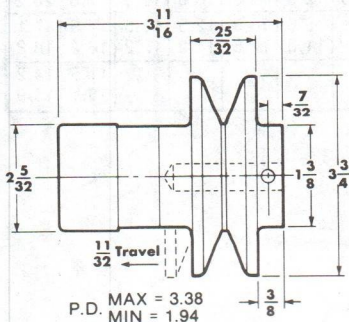
Stock Bore	Stock No.	List Price	Approx. Wt.
$\frac{1}{2}$	H95000	\$81	3
$\frac{5}{8}$	H95001	81	3
$\frac{3}{4}$	H95002	81	3

## **MOTOR PULLEY BASES**

Size	For Motor Frames	Stock No.	List Price	Approx. Wt.
5614	48, 56, 140T	H95221	\$120	22
91-B	56	H95043	247	18
TEL-1	48, 56, 140T	H95048	175	11

## **CONSTANT TORQUE 1.75:1 SPEED RANGE**

$\frac{1}{4}$  —  $\frac{1}{3}$  HP @ 1750 rpm  
 $\frac{1}{8}$  —  $\frac{1}{4}$  HP @ 1450 rpm  
 $\frac{1}{8}$  —  $\frac{1}{4}$  HP @ 1160 rpm





# Selection, Pricing, Stock No.'s

## SIZE 850

OUTPUT SPEEDS MAX. TO MIN. RPM		P. D. DRIVEN SHEAVE	STANDARD V-BELT NUMBER											
			A-26	A-31	A-33	A-35	A-38	A-42	A-46	A-48	A-51	A-53	A-55	A-60
1740 RPM MOTOR	1160 RPM MOTOR		MINIMUM TO MAXIMUM CENTER DISTANCES BETWEEN DRIVING AND DRIVEN SHAFTS											
1660 740	1100 490	5.0	6.0 8.1	8.5 10.6	9.5 11.6	10.5 12.6	12.0 14.1	14.0 16.1	16.0 18.1	17.0 19.1	18.5 20.6	19.5 21.6	20.5 22.6	23.0 25.1
1560 710	1060 470	5.2	...	8.3 10.4	9.3 11.4	10.3 12.4	11.8 13.9	13.8 15.9	15.8 17.9	16.8 18.9	18.3 20.4	19.3 21.4	20.3 22.4	22.8 24.9
1540 685	1020 455	5.4	...	8.2 10.2	9.2 11.2	10.2 12.2	11.7 13.7	13.7 15.7	15.7 17.7	16.7 18.7	18.2 20.2	19.2 21.2	20.2 22.2	22.7 24.7
1485 660	985 440	5.6	...	8.0 9.9	9.0 10.9	10.0 11.9	11.5 13.4	13.5 15.4	15.5 17.4	16.5 18.4	18.0 19.9	19.0 20.9	20.0 21.9	22.5 24.4
1435 638	950 420	5.8	...	7.8 9.8	8.8 10.8	9.8 11.8	11.3 13.3	13.3 15.3	15.3 17.3	16.3 18.3	17.8 19.8	18.8 20.8	19.8 21.8	22.3 24.3
1385 620	920 410	6.0	...	7.7 9.6	8.7 10.6	9.7 11.6	11.2 13.1	13.2 15.1	15.2 17.1	16.2 18.1	17.7 19.6	18.7 20.6	19.7 21.6	22.2 24.2
1340 595	890 400	6.2	...	7.5 9.4	8.5 10.4	9.5 11.4	11.0 12.9	13.0 14.9	15.0 16.9	16.0 17.9	17.5 19.4	18.5 20.4	19.5 21.4	22.0 23.9
1300 580	860 385	6.4	...	7.4 9.2	8.4 10.2	9.4 11.2	10.9 12.7	12.9 14.7	14.9 16.7	15.9 17.7	17.4 19.2	18.4 20.2	19.4 21.2	21.9 23.7
1190 530	785 350	7.0	...	6.9 8.6	7.9 9.6	8.9 10.6	10.3 12.2	12.3 14.2	14.3 16.2	15.3 17.2	16.8 18.8	17.8 19.8	18.8 20.8	21.3 23.1
1015 450	670 300	8.2	...	...	...	7.8 9.6	9.3 11.2	11.3 13.2	13.3 15.2	14.3 16.2	15.9 17.7	16.9 18.7	17.9 19.7	20.3 22.1
920 410	615 275	9.0	...	...	...	...	8.6 10.3	10.6 12.3	12.6 14.3	13.6 15.3	15.2 17.1	16.2 18.1	17.2 19.1	19.6 21.3
785 350	520 230	10.6	...	...	...	...	...	9.1 10.8	11.2 12.9	12.2 14.0	13.8 15.6	14.8 16.6	15.8 17.6	18.3 20.2
690 310	460 205	12.0	...	...	...	...	...	...	9.8 11.5	10.9 12.6	12.5 14.2	13.5 15.2	14.5 16.2	17.1 18.8
555 245	370 165	15.0	...	...	...	...	...	...	...	...	...	...	11.5 13.1	14.2 15.9

Approx. Wt.	
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# Selection, Pricing, Stock No.'s

## SIZE 860

OUTPUT SPEEDS MAX. TO MIN. RPM		P.D. DRIVEN SHEAVE	STANDARD V-BELT NUMBER											
			A-31	A-33	A-35	A-38	A-42	A-46	A-48	A-51	A-53	A-55	A-60	
1740 RPM MOTOR	1160 RPM MOTOR		MINIMUM TO MAXIMUM CENTER DISTANCES BETWEEN DRIVING AND DRIVEN SHAFTS											
1675 610	1110 405	6.0	6.9 9.6	7.9 10.6	8.9 11.6	10.4 13.1	12.4 15.1	14.4 17.1	15.4 18.1	16.9 19.7	17.9 20.7	18.9 21.7	21.4 24.2	
1620 590	1075 390	6.2	6.7 9.4	7.7 10.4	8.7 11.4	10.2 12.9	12.2 14.9	14.2 17.0	15.2 18.0	16.7 19.5	17.7 20.5	18.7 21.5	21.2 24.0	
1570 570	1040 380	6.4	... ...	7.6 10.2	8.6 11.2	10.1 12.7	12.1 14.7	14.1 16.8	15.1 17.8	16.6 19.3	17.6 20.3	18.6 21.3	21.1 23.9	
1435 520	955 345	7.0	... ...	7.1 9.6	8.1 10.7	9.6 12.2	11.6 14.3	13.6 16.3	14.6 17.3	16.1 18.8	17.1 19.8	18.1 20.8	20.6 23.3	
1225 445	815 295	8.2	... ...	... ...	... ...	8.6 11.2	10.6 13.2	12.6 15.2	13.6 16.2	15.2 17.8	16.2 18.8	17.2 19.8	19.6 22.3	
1115 405	740 270	9.0	... ...	... ...	... ...	... 12.4	9.8 14.5	11.9 15.5	12.9 17.1	14.4 18.1	15.4 19.1	16.4 19.1	19.0 21.6	
950 345	630 230	10.6	... ...	... ...	... ...	... ...	... 13.0	10.5 14.0	11.5 15.6	13.1 16.6	14.1 17.6	15.1 17.6	17.6 20.2	
840 305	555 200	12.0	... ...	... ...	... ...	... ...	... ...	... 12.6	10.2 14.2	11.7 15.2	12.8 16.3	13.8 16.3	16.4 18.9	
670 245	445 160	15.0	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	13.5 15.9	

Stock Bore	Stock No.	List Price	Approx. Wt.
$\frac{1}{2}$	H95006	\$155	8
$\frac{5}{8}$	H95007	155	8
$\frac{3}{4}$	H95008	155	8

### MOTOR PULLEY BASES

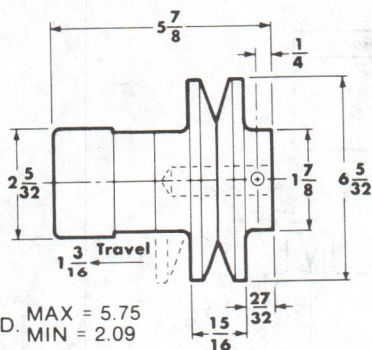
Size	For Motor Frames	Stock No.	List Price	Approx. Wt.
5614	48. 56. 140T	H95221	\$120	22
91-B	56	H95043	247	18
TEL-1	48. 56. 140T	H95048	175	11

### CONSTANT TORQUE 2.75:1 SPEED RANGE

$\frac{3}{4}$  HP @ 1750 rpm

$\frac{1}{2}$  HP @ 1450 rpm

$\frac{1}{2}$  HP @ 1160 rpm





# Selection, Pricing, Stock No.'s

## SIZE 870

OUTPUT SPEEDS MAX. TO MIN. RPM		P.D. DRIVEN SHEAVE	STANDARD V-BELT NUMBER												
			B-38	B-42	B-46	B-48	B-51	B-53	B-55	B-60					
1740 RPM MOTOR	1160 RPM MOTOR		MINIMUM TO MAXIMUM CENTER DISTANCES BETWEEN DRIVING AND DRIVEN SHAFTS												
1565 630	1040 415	7.4	8.9 11.8	10.9 13.8	12.9 15.8	13.9 16.8	15.4 18.4	16.4 19.4	17.4 20.4	19.9 22.9					
1345 540	895 360	8.6	... ...	9.9 12.7	11.9 14.7	12.9 15.8	14.4 17.3	15.4 18.3	16.4 19.3	18.9 21.6					
1230 490	820 325	9.4	... ...	9.2 11.9	11.2 14.0	12.2 15.0	13.8 16.6	14.8 17.6	15.8 18.6	18.3 21.2					
1055 420	700 280	11.0	... ...	... ...	9.8 12.5	10.9 13.5	12.4 15.1	13.4 16.2	14.4 17.2	16.9 19.7					
935 375	620 250	12.4	... ...	... ...	... ...	... ...	11.0 13.7	12.1 14.8	13.1 15.8	15.7 18.4					
775 300	500 200	15.4	... ...	... ...	... ...	... ...	... ...	... ...	... ...	12.8 15.4					

## SIZE 870 JR. PULLEY

DISCOUNT—D-49c

Stock Bore*	Stock No.	List Price	Approx. Wt
$\frac{5}{8}$	H95009	\$186	13
$\frac{3}{4}$	H95010	186	13
$\frac{7}{8}$	H95011	186	13
1	H95012	186	13

## MOTOR PULLEY BASES

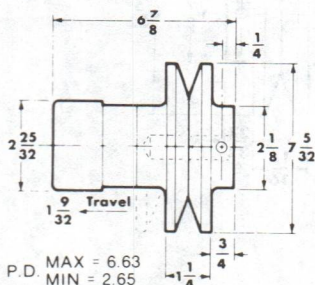
Size	For Motor Frames	Stock No.	List Price	Approx. Wt.
5614	48, 56, 140T	H95221	\$120	22
91-B	56	H95043	247	18
91.5-B	182, 184, 143T, 145T	H95044	274	24
TEL-1	48, 56, 140T	H95048	175	11

## CONSTANT TORQUE 2.5:1 SPEED RANGE

1 HP @ 1750 rpm

$\frac{3}{4}$  HP @ 1450 rpm

$\frac{3}{4}$  HP @ 1160 rpm



...	...	15.9				
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**DISCOUNT—D-49c**

**1 HP @ 1160 rpm**





# Selection

## SIZE CP-5675

### CONSTANT TORQUE

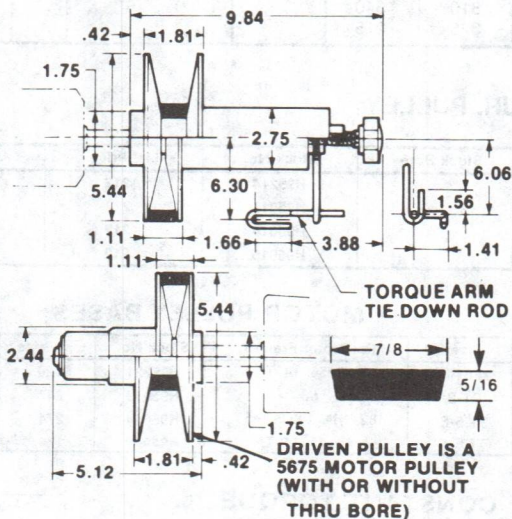
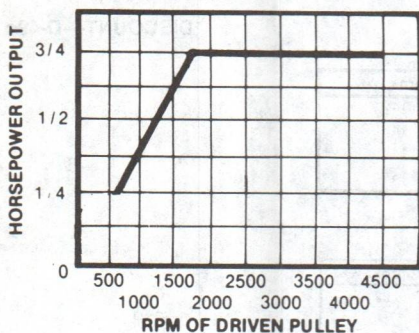
$\frac{3}{4}$  HP @ 1740 rpm 7.8:1 SPEED RANGE

$\frac{1}{2}$  HP @ 1450 rpm 9:1 SPEED RANGE

$\frac{1}{2}$  HP @ 1160 rpm 9:1 SPEED RANGE

OUTPUT SPEEDS		NOMINAL BELT PITCH LENGTH					
1740 MOTOR RPM	1160 MOTOR RPM	30	36	42	48	54	60
SHAFT CENTER DISTANCE							
4500 580	3480 387	9.07	12.35	15.37	18.39	21.40	24.41

### MAXIMUM RECOMMENDED OUTPUT SPEED — 4500 RPM



# Pricing and Stock No.'s

## SIZE CP-5675

### DRIVER PULLEY—DISCOUNT—D-49c

Size	Bore	Stock No.	List Price	Approx. Wt.
CP-5675	1/2	H95518	\$339	6.5
CP-5675	5/8	H95519	339	6.5
CP-5675	3/4	H95520	339	6.5

### DRIVEN PULLEY—DISCOUNT—D-49c

(STANDARD)

Size	Bore	Stock No.	List Price	Approx. Wt.
5675	1/2	H95500	\$145	6
5675	5/8	H95501	145	6
5675	3/4	H95502	145	6

### DRIVEN PULLEY—DISCOUNT—D-49c

(THROUGH-BORE FOR USE WITH CS-1 COUNTERSHAFT)

Size	Bore	Stock No.	List Price	Approx. Wt.
5675	3/4	H95515	\$169	6

### COUNTERSHAFT—DISCOUNT—D-49c

( ( FOR SIZE 5675 THROUGH-BORE)

Size	Shaft Diameter	Stock No.	List Price	Approx. Wt.
CS-1	3/4	H95377	\$219	10

### BELTS—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
30"	014300	H95123	\$30.50	4
36"	014360	H95124	32.00	4
42"	014420	H95125	35.50	4
48"	014480	H95126	37.00	4
54"	014540	H95127	41.00	4
60"	014600	H95128	44.50	4



# Selection

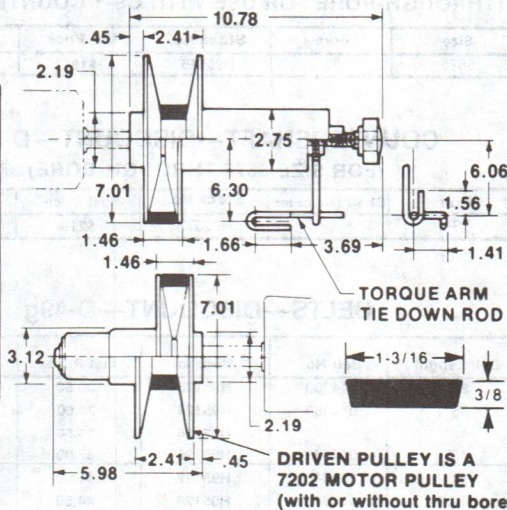
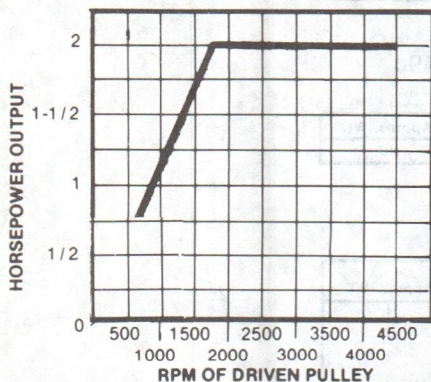
## SIZE CP-7202

### CONSTANT TORQUE

- 2 HP @ 1740 rpm 7.8:1 SPEED RANGE  
 1½ HP @ 1450 rpm 9:1 SPEED RANGE  
 1 HP @ 1160 rpm 9:1 SPEED RANGE

OUTPUT SPEEDS		NOMINAL BELT PITCH LENGTH										
1740 MOTOR RPM	1160 MOTOR RPM	32	36	38	42	45	48	54	60	66	72	80
SHAFT CENTER DISTANCE												
4500 580	3480 387	8.50	10.53	11.59	13.58	15.10	16.62	19.64	22.66	25.68	28.69	32.70

### MAXIMUM RECOMMENDED OUTPUT SPEED — 4500 RPM



# Pricing and Stock No.'s

## SIZE CP-7202

### DRIVER PULLEY—DISCOUNT—D-49c

Size	Bore	Stock No.	List Price	Approx. Wt.
CP-7202	$\frac{5}{8}$	H95521	\$387	11
CP-7202	$\frac{3}{4}$	H95522	387	11
CP-7202	$\frac{7}{8}$	H95523	387	11
CP-7202	1	H95524	387	11

### DRIVEN PULLEY—DISCOUNT—D-49c

(STANDARD)

Size	Bore	Stock No.	List Price	Approx. Wt.
7202	$\frac{5}{8}$	H95503	\$208	14
7202	$\frac{3}{4}$	H95504	208	14
7202	$\frac{7}{8}$	H95505	208	14
7202	1	H95506	208	14

### DRIVEN PULLEY—DISCOUNT—D-49c

(THROUGH-BORE FOR USE WITH CS-2 COUNTERSHAFT)

Size	Bore	Stock No.	List Price	Approx. Wt.
7202	1	H95516	\$232	10

### COUNTERSHAFT—DISCOUNT—D-49c

(FOR SIZE 7202 THROUGH-BORE)

Size	Shaft Diameter	Stock No.	List Price	Approx. Wt.
CS-2	1	H95376	\$219	10

### BELTS—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
32"	103317	H95133	\$49.50	4
36"	103360	H95134	51.00	4
38"	103380	H95135	52.50	4
42"	103420	H95137	54.00	6
45"	103450	H95139	54.50	6
48"	103480	H95140	55.50	6
54"	103540	H95142	58.00	6
60"	103600	H95143	61.00	6
66"	103660	H95145	64.00	6
72"	103720	H95148	69.00	6
80"	103800	H95149	76.50	8



# Selection

## SIZE CP-9205

### CONSTANT TORQUE

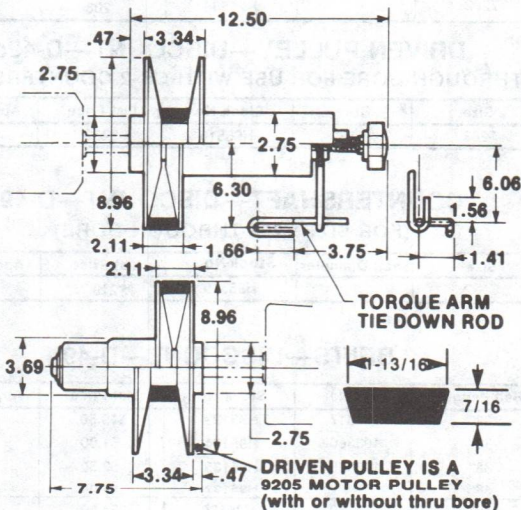
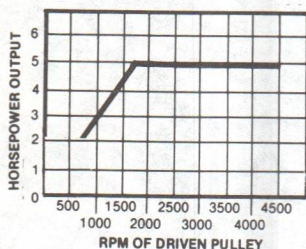
5 HP @ 1740 rpm 7.8:1 SPEED RANGE

3 HP @ 1450 rpm 9:1 SPEED RANGE

3 HP @ 1160 rpm 9:1 SPEED RANGE

OUTPUT SPEEDS		NOMINAL BELT PITCH LENGTH													
1740 Motor RPM	1160 Motor RPM	48	52	54	57	58	60	62	64	68	73	77	82	85	90
		SHAFT CENTER DISTANCE													
4500 580	3480 387	14.38	16.38	17.40	18.41	19.42	20.43	21.44	22.45	24.47	26.48	29.00	31.51	33.02	35.53

### MAXIMUM RECOMMENDED OUTPUT SPEED — 4500 RPM



## SIZE CP-9205

### DRIVER PULLEY—DISCOUNT—D-49c

Size	Bore	Stock No.	List Price	Approx. Wt.
CP-9205	$\frac{7}{8}$	H95525	\$532	19
CP-9205	1	H95526	532	19
CP-9205	$1\frac{1}{8}$	H95527	532	19
CP-9205	$1\frac{3}{8}$	H95528	532	19

### DRIVEN PULLEY—DISCOUNT—D-49c

(STANDARD)

Size	Bore	Stock No.	List Price	Approx. Wt.
9205	$\frac{7}{8}$	H95507	\$290	24
9205	1	H95508	290	24
9205	$1\frac{1}{8}$	H95509	290	24
9205	$1\frac{3}{8}$	H95510	290	24

### DRIVEN PULLEY—DISCOUNT—D-49c

(THROUGH-BORE FOR USE WITH CS-2 COUNTERSHAFT)

Size	Bore	Stock No.	List Price	Approx. Wt.
9205	1	H95517	\$315	24

### COUNTERSHAFT—DISCOUNT—D-49c

(FOR SIZE 9205 THROUGH-BORE)

Size	Shaft Diameter	Stock No.	List Price	Approx. Wt.
CS-2	1	H95378	\$219	10

### BELTS—DISCOUNT—D-49g

Belt Length	Belt No.	Stock No.	List Price	Approx. Wt.
48"	113480	H95170	\$ 89.00	8
52"	113515	H95171	91.50	9
54"	113540	H95172	94.00	9
57"	113568	H95173	94.50	9
58"	113580	H95174	95.50	9
60"	113600	H95175	97.00	9
62"	113623	H95177	97.50	9
64"	113640	H95178	98.50	9
68"	113680	H95180	101.50	9
72"	113720	H95182	104.50	9
77"	113770	H95183	110.00	9
83"	113827	H95184	113.50	9
85"	113849	H95185	115.00	9
90"	113900	H95187	119.50	9



## Description and Features

### SIZES 1075-D AND 1200-D

#### REEVES DUAL ACTING VARI-SPIN PULLEYS 15 AND 20 HP

- Dual acting feature provides proper belt alignment at all speeds.
- Once a year service; no weekly or monthly lubrication.
- Rugged cast iron discs and steel hub for long service.
- Springs are enclosed in cartridges for safety during annual maintenance.

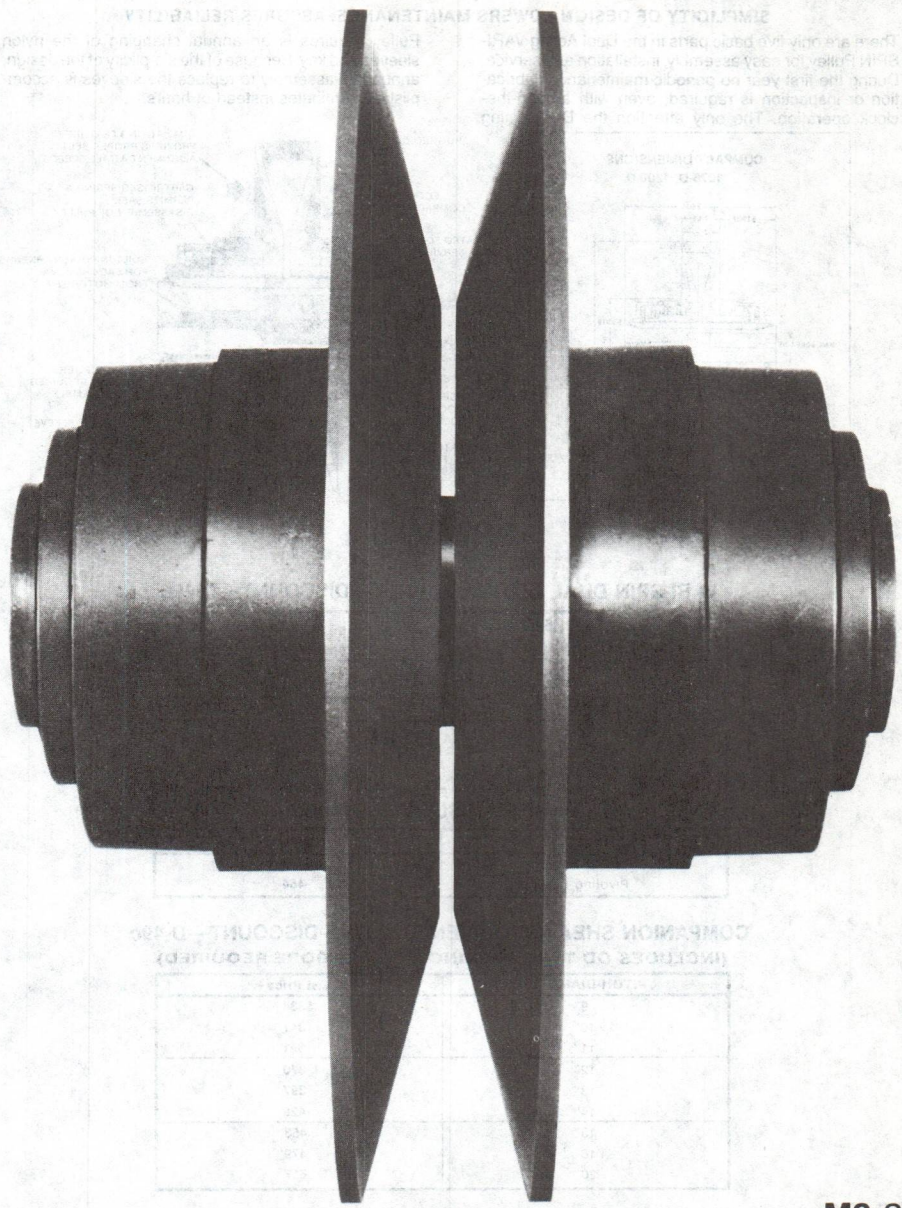
Compact REEVES Dual Acting VARI-SPIN Pulleys adjust speed in seconds with the spinning frame running. Infinitely variable speed with up to 2:1 speed range adds to the productivity of existing equipment. Best of all, the VARI-SPIN mounts on any 15 or 20 horsepower ball bearing motor and uses proven, long life belts with 2" top width.

The dual acting design maintains proper belt alignment throughout the speed range. The two safety cartridges keep belt tension correct at all speeds. Any of three methods of shifting speed can be used—idler shifting, pivoting base, or sliding base. Add a Dual Acting VARI-SPIN Pulley to a RELIANCE DUTY MASTER A-C Motor for the most reliable drive in the industry.

SIZES 105-D AND 120-D

SIMPLICITY OF DESIGN EASY MAINTENANCE

There are only five basic parts to the M-35. The design is so simple that it can be assembled in less than 10 minutes. The only tool required is a screwdriver. The design is so simple that it can be disassembled in less than 10 minutes. The only tool required is a screwdriver. The design is so simple that it can be assembled in less than 10 minutes. The only tool required is a screwdriver. The design is so simple that it can be disassembled in less than 10 minutes. The only tool required is a screwdriver.







**2:1 SPEED RANGE**

**1075-D**

**(15 or 20 HORSEPOWER)  
1800 RPM MOTOR**

DRIVEN SHEAVE PITCH DIAMETER	OUTPUT SPEEDS RPM	BELT NUMBERS						
		T-53020	T-54820	T-55520	T-57220	T-58720	T-60520	T-61420
		SHAFT CENTER DISTANCE						
9.0	2017-997	11.3-15.3	12.2-16.2	12.5-16.6	13.4-17.4	14.1-18.2	15.0-19.1	15.5-19.5
10.0	1816-897	.....	11.4-15.3	11.8-15.7	12.6-16.5	13.4-17.3	14.3-18.2	14.8-18.7
11.0	1650-815	.....	.....	11.0-14.8	11.8-15.6	12.6-16.4	13.5-17.3	13.9-17.7
12.0	1510-750	.....	.....	.....	.....	11.8-15.5	12.7-16.4	13.1-16.9
13.0	1390-695	.....	.....	.....	.....	.....	.....	12.3-15.9
14.0	1300-650	.....	.....	.....	.....	.....	.....	.....
15.0	1210-605	.....	.....	.....	.....	.....	.....	.....
16.0	1135-565	.....	.....	.....	.....	.....	.....	.....
20.0	905-450	.....	.....	.....	.....	.....	.....	.....
DRIVEN SHEAVE PITCH DIAMETER	OUTPUT SPEEDS RPM	BELT NUMBERS						
		T-62220	T-62820	T-64620	T-67220	T-72420	T-82320	T-96020
		SHAFT CENTER DISTANCE						
9.0	2017-997	15.9-20.1	16.2-20.2	17.1-21.1	18.4-22.4	21.0-25.0	26.0-30.0	30.0-36.9
10.0	1816-897	15.0-19.1	15.4-19.4	16.3-20.3	17.6-21.6	20.2-24.2	25.1-29.2	32.0-36.0
11.0	1650-815	14.3-18.1	14.6-18.4	15.5-19.3	16.8-20.6	19.4-23.2	24.4-28.2	31.2-35.0
12.0	1510-750	13.5-17.3	13.8-17.6	14.7-18.5	16.0-19.8	18.6-22.4	23.6-27.3	30.4-34.2
13.0	1390-695	12.7-16.3	13.0-16.6	13.9-17.5	15.2-18.8	17.8-21.4	22.8-26.4	29.6-33.2
14.0	1300-650	.....	.....	13.0-16.7	14.4-18.0	17.0-20.6	22.0-25.5	28.8-32.4
15.0	1210-605	.....	.....	.....	13.5-17.0	16.0-19.6	21.0-24.6	27.9-31.4
16.0	1135-565	.....	.....	.....	.....	15.3-18.8	20.2-23.8	27.0-30.6
20.0	905-450	.....	.....	.....	.....	.....	16.6-20.0	23.4-26.9

**1.75:1 SPEED RANGE**

**1200-D**

**(15 or 20 HORSEPOWER)  
1800 RPM MOTOR**

DRIVEN SHEAVE PITCH DIAMETER	OUTPUT SPEEDS RPM	BELT NUMBERS				
		T-60520	T-61420	T-62220	T-62820	T-64620
		SHAFT CENTER DISTANCE				
11.0	1870-1074	12.3-16	12.8-16.5	13.2-16.9	13.5-17.2	14.4-18.1
12.0	1700- 970	.....	.....	12.5-16.2	12.8-16.5	13.7-17.4
13.0	1568- 896	.....	.....	.....	.....	12.9-16.6
14.0	1455- 833	.....	.....	.....	.....	.....
15.0	1358- 777	.....	.....	.....	.....	.....
16.0	1275- 728	.....	.....	.....	.....	.....
20.0	1020- 583	.....	.....	.....	.....	.....
DRIVEN SHEAVE PITCH DIAMETER	OUTPUT SPEEDS RPM	BELT NUMBERS				
		T-67220	T-72420	T-82320	T-96020	
		SHAFT CENTER DISTANCE				
11.0	1870-1074	15.7-19.4	18.3-22.1	23.3-27	30.1-34	
12.0	1700- 970	15.0-18.7	17.6-21.4	22.6-26.3	29.4-33.3	
13.0	1568- 896	14.3-17.9	16.8-20.5	21.8-25.5	28.6-32.4	
14.0	1455- 833	13.4-17.0	16.0-19.6	21.0-24.7	27.8-31.6	
15.0	1358- 777	.....	15.2-18.7	20.2-23.8	27.0-30.7	
16.0	1275- 728	.....	.....	19.3-22.9	26.2-29.8	
20.0	1020- 583	.....	.....	.....	22.8-26.2	



# Selection and Pricing

## SIZE 975-T

### NO. 975-T TEXTILE PULLEY DRIVE

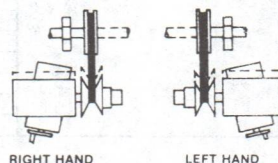
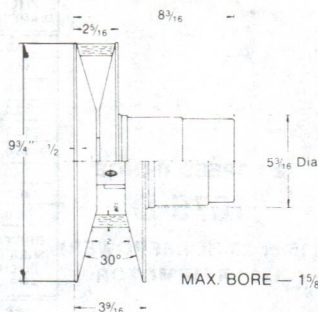
7½, 10, 15 HP @ 1740 rpm

7½, 10 HP @ 1160 rpm

#### PRICING

Description		List Price	Approx. Ship Wt.-Lbs.	Discount
No. 975-T Disc Assembly		\$666	35	D-49c
Belt, No. T-53020 thru T-72420*		127	3	D-49g
Belt, No. T-82320*		146	4	D-49g
Belt, No. T-96020*		165	4½	D-49g
Companion Sheaves (Includes QD Type Bushing. Specify Bore Required)	10" Diameter	341	20	D-49c
	11" Diameter	351	22	D-49c
	12" Diameter	370	25	D-49c
	13" Diameter	397	27	D-49c
	14" Diameter	426	30	D-49c
	15" Diameter	453	33	D-49c
	16" Diameter	479	37	D-49c
	20" Diameter	617	51	D-49c

\*Belts should be 2" Top Width, 1½" thick.



**NOTE:** Facing Control. Drive is R.H. when Disc Assembly is to right. Drive is L.H. when Disc Assembly is to left.

975-T VARI-SPIN DRIVE SELECTION TABLE

Companion (Driven) Sheave Diameter (Inches)	Output Speed		Belt Numbers											
	1740 rpm Motor	1160 rpm Motor	Shaft Center Distance											
			T-55520	T-57220	T-58720	T-60520	T-61420	T-62220	T-62820	T-64620	T-67220	T-72420	T-82320	T-96020
10	1645 822	1090 545	12.5 16.0	13.4 16.8	14.1 17.6	15.0 18.5	15.5 18.9	15.9 19.3	16.1 19.6	17.0 20.5	18.4 21.8	—	—	—
11	1500 750	990 495	11.7 15.1	12.6 15.9	13.3 16.7	14.2 17.6	14.6 18.0	15.0 18.4	15.4 18.7	16.2 19.6	17.6 20.9	20.1 23.5	—	—
12	1370 685	910 455	— —	11.7 15.0	12.5 15.8	13.4 16.6	13.8 17.1	14.2 17.5	14.5 17.8	15.4 18.7	16.7 20.0	19.3 22.6	—	—
13	1265 633	840 420	— —	— —	— —	12.6 15.8	13.0 16.3	13.4 16.7	13.7 17.0	14.6 17.9	15.9 19.2	18.5 21.8	—	—
14	1175 587	780 390	— —	— —	— —	— —	— —	12.5 15.7	12.8 16.0	13.7 16.9	15.0 18.2	17.6 20.8	—	—
15	1100 550	730 365	— —	— —	— —	— —	— —	— —	— —	12.9 16.0	14.2 17.3	16.8 19.9	—	—
16	1030 515	680 340	— —	— —	— —	— —	— —	— —	— —	— —	13.3 16.3	15.9 18.9	20.9 23.9	—
20	824 412	546 275	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	17.2 20.3	24.0 27.1

## SIZE 1200-T

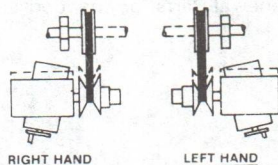
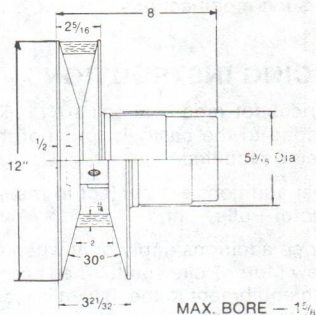
### NO. 1200-T TEXTILE PULLEY DRIVE

20 HP @ 1740 rpm  
15 HP @ 1160 rpm

#### PRICING

Description		List Price	Approx. Ship Wt.-Lbs.	Discount
No. 975-T Disc Assembly		\$817	35	D-49c
Belt, No. T-53020 thru T-72420*		127	3	D-49g
Belt, No. T-82320*		146	4	D-49g
Belt, No. T-96020*		165	4½	D-49g
Companion Sheaves (includes QD Type Bushing, Specify Bore Required)	12" Diameter	370	25	D-49c
	13" Diameter	397	27	D-49c
	14" Diameter	426	30	D-49c
	15" Diameter	453	33	D-49c
	16" Diameter	479	37	D-49c
	20" Diameter	617	51	D-49c

Belts should be 2" Top Width, 1 1/16" thick.



**NOTE:** Facing Control, Drive is R.H. when Disc Assembly is to right. Drive is L.H. when Disc Assembly is to left.

1200-T VARI-SPIN DRIVE SELECTION TABLE

Companion (Driven) Sheave Pitch Diameter	Speed rpm Output	Belt Numbers						
		T-62220	T-62820	T-64620	T-67220	T-72420	T-82320	T-96020
		Shaft Center Distance						
12	1700	12.5	12.8	13.7	15.0	17.6	22.6	29.4
	970	16.2	16.5	17.4	18.7	21.4	26.3	33.3
13	1568	—	—	12.9	14.3	16.8	21.8	28.6
	896	—	—	16.6	17.9	20.5	25.5	32.4
14	1455	—	—	—	13.4	16.0	21.0	27.8
	833	—	—	—	17.0	19.6	24.7	31.6
15	1358	—	—	—	—	15.2	20.2	27.0
	777	—	—	—	—	18.7	23.8	30.7
16	1275	—	—	—	—	—	19.3	26.2
	728	—	—	—	—	—	22.9	29.8
20	1020	—	—	—	—	—	—	22.8
	583	—	—	—	—	—	—	26.2



# Modifications

## GENERAL POLICY

Modifications and corresponding additions are listed for pricing purposes only. The appearance of a particular item is not an indication that the company is committed to furnish Motor Pulleys with such modifications.

## PRICING INSTRUCTIONS

1. Prices for modifications are LIST ADDITIONS and are to be added to the basic list price of the Motor Pulley component being modified.
2. List additions are subject to the same multiplier as complete Motor Pulley units.
3. Price additions apply only when ordering modifications with new Motor Pulley unit. When applying modifications on existing equipment in the field, it will be necessary to refer full particulars and component model number (stamped on nameplate of base and end of hub on disc assemblies) to the Reeves Renewal Parts for changeover parts and prices.

## MOTOR BASES (90 SERIES) DRILLED AND TAPPED TO ACCEPT MOTOR

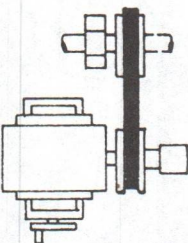
Specify:

A. Right Hand or Left Hand Mountings.

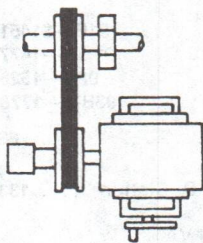
B. Motor Frame to be Mounted.

### DISCOUNT—D-49c

	Size	List Price
Extra Charge for Motor Base Ready to Mount Motor (Drilled & Tapped)	91-B	\$27
	91.5B	44
	92-B	44
	93-B1	44



RIGHT HAND



LEFT HAND

#### NOTE:

Facing control, drive is  
R.H. when disc assembly is  
to right. Drive is L.H.  
when disc assembly is to left.

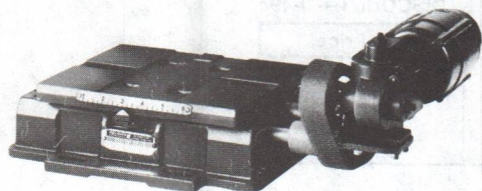
**SPECIAL (NON-STOCK) BORES: REFER TO REEVES PRODUCT DEPT.  
FOR PRICING AND AVAILABILITY**



## STANDARD ELECTRIC REMOTE CONTROL <sup>(1)</sup> (WITH NO.'s 91-B, 91.5-B, 92-B AND 93-B1 BASES)

DISCOUNT—D-49

**ELECTRIC REMOTE CONTROL:** For operation on 110 — 125 volts, a-c or d-c current — includes universal type gear head motor, overload disconnect switch and one pushbutton station. Transformer for other voltage and/or frequency at extra charge.

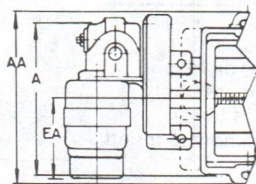
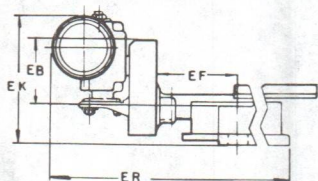


CONTROL, complete (including std. base) .... 91B—\$1451  
91.5B—1477  
92B—1526  
93B-1—1778

Additional pushbutton stations, each ..... 66

Transformer for control to operate on:  
230-460-575 volts, 50-60 Hz (115 volts at P.B. Station) .... 133

**NOTE:** Transformer Size (if required) 100 VA



Base Size	91B	91.5B	92B	93B-1
A	7-3/8	7-15/16	10-1/4	12-3/4
AA	8-3/8	9-3/16	11-3/8	14-3/8
EA	4-5/8	4-1/8	5-3/8	4-9/16
EB	3-3/16	3-13/16	3-3/16	4-3/8
EF	4-3/32	6	6	5-3/4
EK	6-1/2	7-1/32	7-5/16	8-13/16
ER	16-13/16	20-1/4	21-5/8	27-11/16

### Wiring Diagram 1-38547

(1) Prices apply only when furnished with new Motor Pulley Base.

**HEAVY DUTY ELECTRIC REMOTE CONTROL (1)**  
**USED WITH NO. 93-B1 BASE**

**DISCOUNT—D-49c**

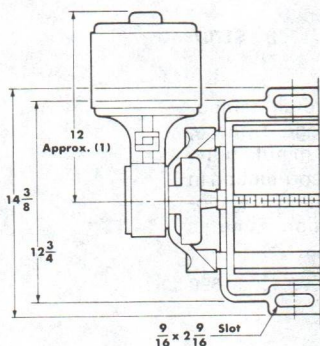
**ELECTRIC REMOTE CONTROL:** For operation on 115 volt, 1-phase, 60 Hz — includes one reversing type pushbutton station; a standard enclosed type single-phase a-c motor; a gear box assembly with a built-in safety clutch. For 93-B1 base, control mounts on base. For 91-B through 92-B bases, control is floor mounted.

**LIST ADDITION:** For BASE sizes 91-B through 93-B1.

**CONTROL, Complete (Add to Standard Base Price) .. \$1444**

**Additional reversing type pushbutton stations, each .... \$131**

**NOTE:** Transformer Size (if required) 150 VA.



**Wiring Diagram 1-60955**

(1) Prices apply only when furnished with new Motor Pulley Base.



## HEAVY DUTY ELECTRIC REMOTE CONTROL (EXPLOSION-PROOF) (1) (USED WITH NO. 93-B1 BASE)

DISCOUNT—D-49c

Explosion-Proof Electric Remote Control is bracket mounted for base size No. 93-B1. The control consists of an explosion-proof motor, gear reducer with built-in safety clutch, driver and driven sprockets, connecting chain, and pushbutton switch or explosion-proof reversing contactors and explosion-proof pushbutton station.

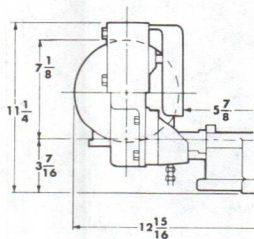
**Single phase (pushbutton not explosion-proof).** Where pushbutton may be located outside hazardous area, 115 volt, single voltage, 1-phase, 60 Hz, Type CS, 3 lead not instantly reversible, 15 minute duty, explosion-proof control motor with built-in thermal protection and one pushbutton station in NEMA 1 enclosure. Voltage at pushbutton station same as motor.

(Add to Standard Base Price) ..... **\$1707**

**Single phase (pushbutton explosion-proof).** Where all components must be explosion-proof, 115 volt, single voltage, 1-phase, 60 Hz, Type CS, 3 lead, not instantly reversible, 15 minute duty, explosion-proof control motor with built-in thermal protection in explosion-proof enclosure, and one pushbutton station in explosion-proof enclosure. Voltage at pushbutton station same as motor.

(Add to Standard Base Price) ..... **\$1899**

(1) Prices apply only when furnished with new Motor Pulley Base.



Wiring Diagram 1-60955

## HEAVY DUTY ELECTRIC REMOTE CONTROL (1) (FLOOR MOUNTED)

DISCOUNT—D-49c

**ELECTRIC REMOTE CONTROL:** For operation on 115 volts, 60 Hz — includes one reversing type pushbutton station; a standard enclosed type a-c motor; gear box assembly with a built-in safety clutch. For 91-B, 91.5-B and 92-B bases, control is floor mounted.

**NOTE:** Transformer Size (if required) 150 VA

**LIST ADDITION:** For BASE sizes 91-B through 92-B.

**CONTROL, Complete (Add to Standard Base Price) ... \$1444**

**Additional reversing type pushbutton stations, each .....\$131**

### Wiring Diagram 1-60955

(1) Prices apply only when furnished with new Motor Pulley Base.



## Modifications

### HEAVY DUTY ELECTRIC REMOTE CONTROL (EXPLOSION-PROOF) (1) (FLOOR MOUNTED)

DISCOUNT—D-49c

Explosion-Proof Electric Remote Control is floor mounted for base size No.'s 91-B, 91.5-B and 92-B bases. The control consists of an explosion-proof motor, gear reducer with built-in safety clutch, driver and driven sprockets, connecting chain, and pushbutton switch or explosion-proof reversing contactors and explosion-proof pushbutton station.

#### 115V, SINGLE-PHASE, HEAVY DUTY ERC WITH STANDARD PUSHBUTTON STATION

##### Wiring Diagram 1-60955

**NOTE:** Transformer Size (if required) 150 VA

**Single-phase (pushbutton not explosion-proof).** Where pushbutton may be located outside hazardous area, 115 volt, single voltage, 1-phase, 60 Hz, Type CS, 3 lead not instantly reversible, 15 minute duty, explosion-proof control motor with built-in thermal protection, and one pushbutton station in NEMA 1 enclosure. Voltage at pushbutton station same as motor.

(Add to Standard Base Price) ..... **\$1707**

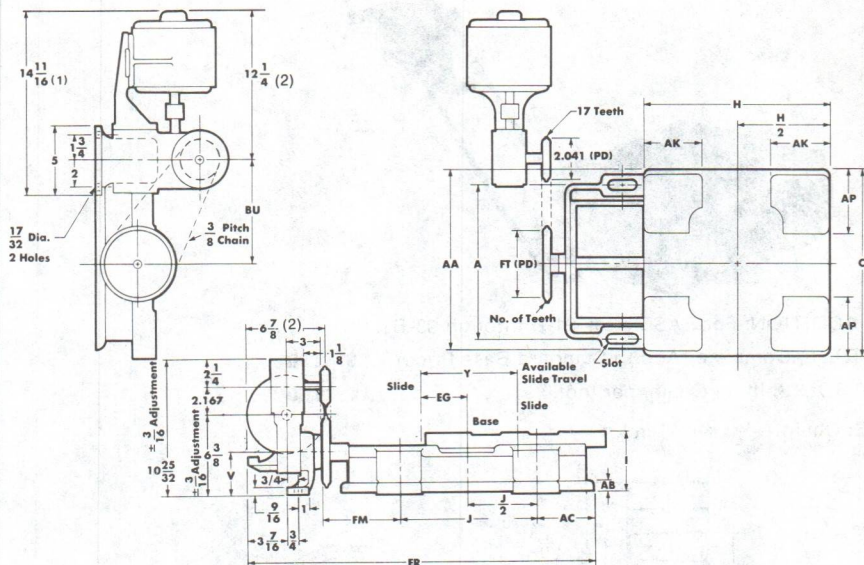
**Single-Phase (pushbutton explosion-proof).** Where all components must be explosion-proof, 115 volt, single voltage, 1-phase, 60 Hz, Type CS, 3 lead, not instantly reversible, 15 minute duty, explosion-proof motor with built-in thermal protection, and one pushbutton station in explosion-proof enclosure. Voltage at pushbutton station same as motor.

(Add to Standard Base Price) ..... **\$1899**

(1) Prices apply only when furnished with new Motor Pulley Base.

# HEAVY DUTY AND EXPLOSION-PROOF ELECTRIC REMOTE CONTROL, FLOOR MOUNTED

(WHEN USED WITH NO.'s 91-B, 91.5-B and 92-B BASES)



Base Size	Motor Frame	A	C	H	I	J	V	Y	AA	AB	AC
91B	56 66	7-3/8	7	8-3/8	3	4-15/16	1-15/16	4	8-3/8	1/2	2-17/32
91.5B	182-4	7-15/16	7-1/2	10	3-1/2	5-1/4	2-3/8	6-5/8	9-3/16	1/2	3-11/16
92B	184 213-5 224-5	10-1/4	9-7/8	11	4	6	2-15/16	6-7/8	11-3/8	5/8	4-1/4
Base Size	Motor Frame	AK	AP	EG	ER	Slot		FM	FT	BU	No. of Teeth
91B	56 66	2-1/2	2-1/2	2	20-25/32	7/16x3/16		4-7/8	2.873	3-1/2	24
91.5B	182-4	3	3-1/4	3-5/16	21-5/16	1/2x1-1/2		5-5/16	2.873	4	24
92B	184 213-5 224-5	3-1/2	3-3/16	3-1/4	23-15/16	7/16x1-11/16		7-1/4	4.78	4-15/16	40

- Prices apply only when furnished with new Motor Pulley Units.
- These dimensions vary due to make and enclosure of motor used.

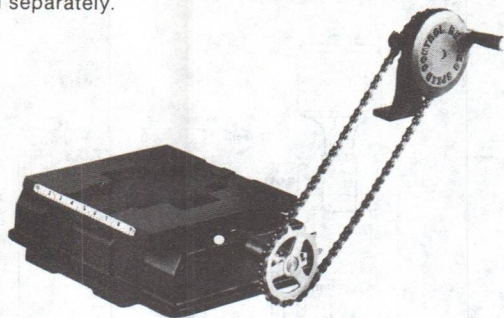


# Modifications

## CHAIN EXTENDED HANDWHEEL

DISCOUNT—D-48

**CHAIN EXTENDED HANDWHEEL:** Includes — handwheel and bracket, two sprockets, one adaptor. Roller type shifting chain priced separately.

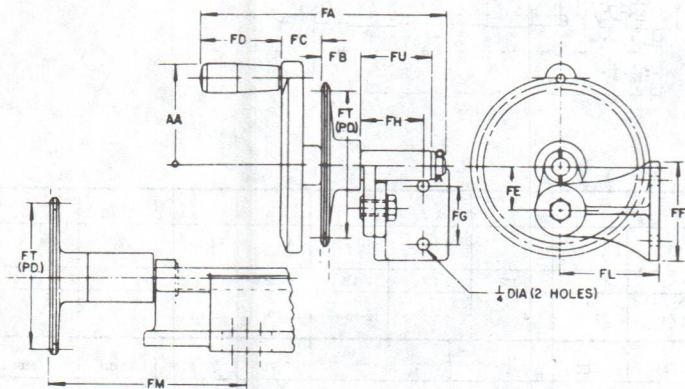


LIST ADDITION: For BASE sizes 91-B through 93-B1.

CONTROL, Complete (Add to Standard Base Price) . **\$142.00**

CONTROL, Shifting Chain, per foot ..... **\$5.50**

**NOTE:** Chain —  $\frac{3}{16} \times 1"$  Pitch.

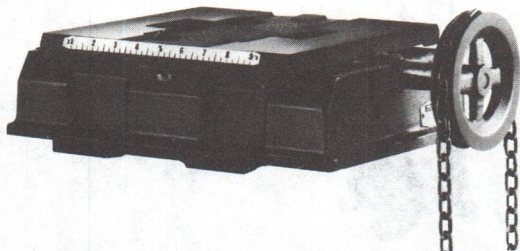


Base Size	FA	FB	FC	FD	FE	FF	FG	FH	FL	FM	FT	FU	AA
91-B	$5\frac{7}{8}$	$1\frac{5}{16}$	1	$2\frac{1}{16}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$4\frac{7}{8}$	3.8	$1\frac{1}{2}$	$2\frac{5}{8}$
91.5-B	$5\frac{7}{8}$	$1\frac{5}{16}$	1	$2\frac{1}{16}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$5\frac{15}{16}$	3.8	$1\frac{1}{2}$	$2\frac{5}{8}$
92-B	$5\frac{7}{8}$	$1\frac{5}{16}$	1	$2\frac{1}{16}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$7\frac{1}{4}$	3.8	$1\frac{1}{2}$	$2\frac{5}{8}$
93-B-1	$7\frac{9}{16}$	$1\frac{5}{16}$	$1\frac{1}{8}$	$2\frac{9}{16}$	1	$2\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{7}{8}$	$1\frac{7}{16}$	$7\frac{3}{8}$	3.8	$2\frac{1}{2}$	$4\frac{3}{16}$

## OVERHEAD HANDCHAIN

DISCOUNT—D-49c

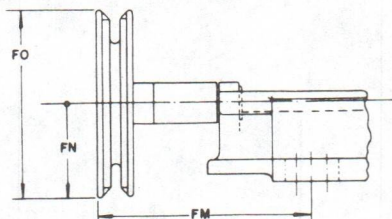
**OVERHEAD HAND CHAIN:** Includes handchain wheel and adaptor. Handchain priced separately.



**LIST ADDITION:** For BASE sizes 91-B through 93-B1.

**CONTROL, Complete (Add to Standard Base Price) .. \$75.00**

**HANDCHAIN, extra, per foot .....\$4.00**



Base Size	FM	FN	FO
91-B	$5\frac{9}{32}$	$2\frac{5}{16}$	$4\frac{5}{8}$
91.5-B	$6\frac{1}{2}$	$2\frac{5}{16}$	$4\frac{5}{8}$
92-B	$7\frac{9}{16}$	$2\frac{5}{16}$	$4\frac{5}{8}$
93-B-1	$7\frac{13}{16}$	$2\frac{5}{16}$	$4\frac{5}{8}$

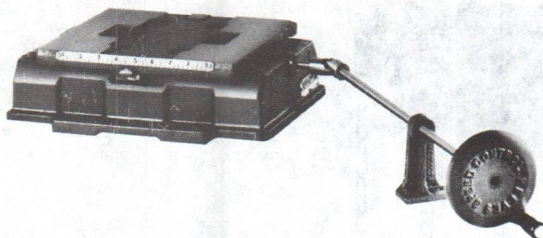


# Modifications

## EXTENDED ROD

DISCOUNT—D-49

**EXTENDED ROD:** Includes handwheel and bracket, one universal joint, control rod up to 5 feet long. Extra charge for additional rod length.



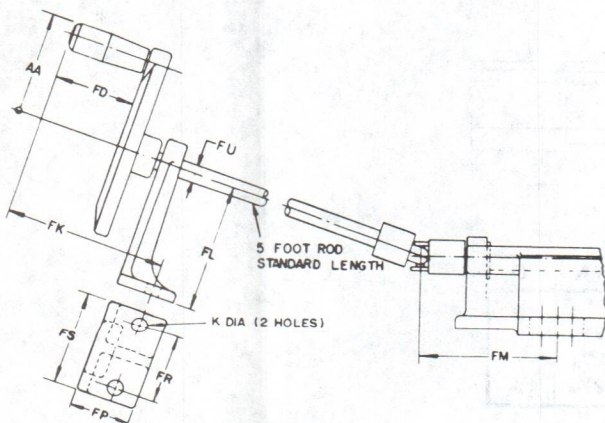
**LIST ADDITION:** For BASE sizes 91-B through 93-B1.

**CONTROL, Complete** (Add to Standard Base Price) . . . **\$137.00**

**CONTROL ROD, extra length, per foot or fraction thereof, for:**

BASE sizes 91-B through 92-B, extra charge . . . . . **\$5.50**

BASE size 93-B1, extra charge . . . . . **\$7.50**



Base Size	FD	FK	FL	FM	FP	FR	FS	AA	K	FU
91-B	2 <sup>1</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>16</sub>
91.5-B	2 <sup>1</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	4 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>16</sub>
92-B	2 <sup>1</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>16</sub>
93-B-1	2 <sup>9</sup> / <sub>16</sub>	4 <sup>11</sup> / <sub>16</sub>	5	6 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>

# Modifications

## THROUGH-BORE 800 SERIES (JR. PULLEY)

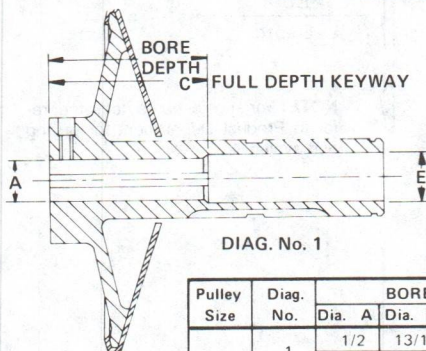
DISCOUNT—D-49c

Disc assemblies for the Jr. Motor Pulley can be modified for through-bore construction. Generally, disc assemblies with through-bore construction are furnished when the disc assembly is mounted on the driven shaft rather than on the driving motor shaft.

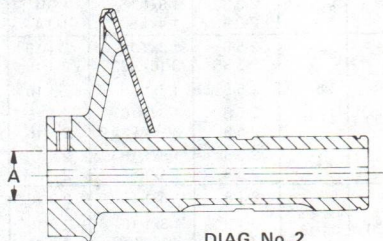
The following list price addition applies:

Jr. Pulley Size	Quantity				
	1	2 — 4	5 — 9	10 — 25	25 & Up
830	\$274	\$175	\$44	\$23	\$12
850	274	175	44	23	12
860	274	175	44	23	12
870	274	175	44	23	12
875	274	175	44	23	12

PULLEY THROUGH BORE SIZES 830-875



DIAG. No. 1



DIAG. No. 2

Pulley Size	Diag. No.	BORE			KEYWAY	
		Dia. A	Dia. E	Depth	Size	C
830	1	1/2	13/16	2	1/8 x 1/16	2
		5/8	13/16		3/16 x 3/32	
	2	3/4	.....	.....	3/16 x 3/32	.....
850	1	1/2	13/16	2 3/8	1/8 x 1/16	2 3/8
		5/8	13/16		3/16 x 3/32	
	2	3/4	.....	.....	3/16 x 3/32	.....
860	1	1/2	13/16	2 5/8	1/8 x 1/16	2 5/8
		5/8	13/16		3/16 x 3/32	
	2	3/4	.....	.....	3/16 x 3/32	.....
870	1	5/8	1-3/32	2-11/16	3/16 x 3/32	2-11/16
		3/4	1-3/32		3/16 x 3/32	
	2	7/8	1-3/32	.....	3/16 x 3/32	.....
875	1	1	.....	3-7/32	1/4 x 1/16	3-7/32
		3/4	1-3/32		3/16 x 3/32	
	2	7/8	1-3/32	.....	3/16 x 3/32	.....



# Modifications

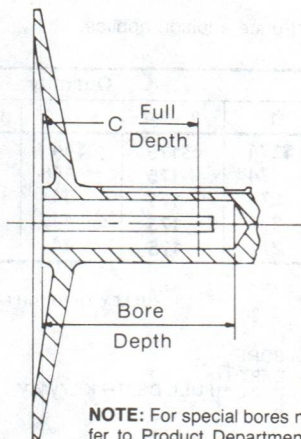
## SPECIAL BORES AND KEYWAYS 800 SERIES (Jr. Pulley) (1)

DISCOUNT—D-49c

Jr. Motor Pulley disc assemblies can be furnished with special bores and keyways listed in the table below:

THE FOLLOWING LIST PRICE ADDITION APPLIES:.....\$171

Pulley Size	Bore		Keyway	
	Dia.	Max. Depth	Size	C
830	9/16	2	1/8x1/16	1-7/16
		2	3/16x3/32	1-7/16
	5/8	2	1/8x1/16	1-7/16
		2	1/8x1/16	1-7/16
	11/16	2	3/16x3/32	1-7/16
		2	3/16x3/32	1-7/16
850	9/16	2	1/8x1/16	1-3/8
		2	1/4x1/8	1-3/8
	5/8	2-3/8	1/8x1/16	1-13/16
		2-3/8	3/16x3/32	1-13/16
	11/16	2-3/8	1/8x1/16	1-13/16
		2-3/8	3/16x3/32	1-13/16
860	9/16	2-3/8	1/8x1/16	1-3/4
		2-3/8	1/4x1/8	1-3/4
	5/8	2-5/8	1/8x1/16	2-1/16
		2-5/8	3/16x3/32	2-1/16
	11/16	2-5/8	1/8x1/16	2-1/16
		2-5/8	3/16x3/32	2-1/16
870	9/16	2-5/8	1/8x1/16	2
		2-5/8	1/4x1/8	2
	5/8	3-1/8	1/8x1/16	2-9/16
		3-1/8	3/16x3/32	2-9/16
	11/16	3-1/8	1/8x1/16	2-9/16
		3-1/8	3/16x3/32	2-9/16
870 & 875	3/4	3-1/8	1/8x1/16	2-1/2
		3-1/8	1/4x1/8	2-1/2
	13/16	3-1/8	1/8x1/16	2-1/2
		3-1/8	3/16x3/32	2-1/2
	7/8	3-1/8	1/8x1/16	2-1/2
		3-1/8	3/16x3/32	2-1/2
870 & 875	5/16	3-1/8	1/8x1/16	2-5/16
		3-1/8	3/16x3/32	2-5/16
	31/32	3-1/8	1/8x1/16	2-5/16
		3-1/8	3/16x3/32	2-5/16
	63/64	3-1/8	1/8x1/16	2-1/2
		3-1/8	3/16x3/32	2-1/2
1	1	3-1/8	1/8x1/16	2-1/2
		3-1/8	3/16x3/32	2-1/2
	1	3-1/8	1/8x1/16	2-1/2
		3-1/8	3/16x3/32	2-1/2
	1	3-1/8	1/8x1/16	2-1/2
		3-1/8	3/16x3/32	2-1/2



**NOTE:** For special bores not listed, refer to Product Department for pricing and availability.

### DOMESTIC ORDERS BOXED FOR EXPORT

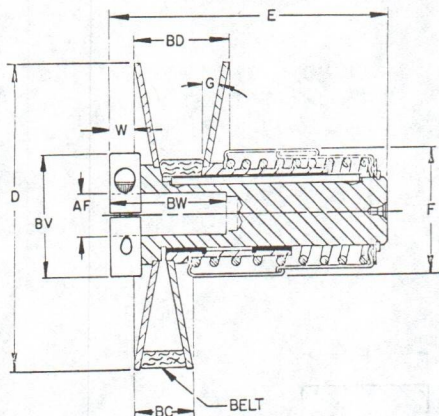
On domestic orders for the Vari-Speed Motor Pulley and replacement parts which require crating for export, there will be an addition of \$20.00 minimum or 5% of net sales billed, whichever is greater. This price will be subject to the same terms and F.O.B. point as domestic shipments.

- (1) This is per order set-up charge which applies to each bore size ordered and shipped at one time. The price addition is to apply only once on each order for identical units ordered in quantity.

# Dimensions

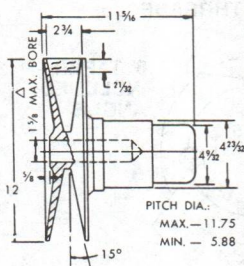
## SIZES 5675, 7202, 9205 AND 1110

### STANDARD BLIND BORE TYPE



DIMENSION SHEET — 600932-07 •

## SIZE 912-15



Size	912-15	Size	912-15
D	12	W	5/8
E	11 1/4	Max. Bore	1 5/8 (1)
F	4 23/32	Max. P.D.	11.75
G	15°	Min. P.D.	5.88
O	2 1/32	Speed Ratio	2 to 1
P	2 3/4		

(1) Shallow Keyway necessary with max. Bore for Size 912-15 ..... 3/8 x 5/32

Pulley Size	HP Rating	D	E	F	BV	W	BC	BD	Max. P.D.	Min. P.D.	Speed Ratio	Belt	G
5675	Inches 1/4, 1/2	5.44	5.12	2.44	2.25	.44	1.11	1.78	5.19	1.73	3.0 to 1	.88 x .31	11°
7202	Inches 1, 1 1/2	6.04	5.98	3.12	2.50	.47	1.46	2.38	6.76	2.25	3.0 to 1	1.19 x .38	11°
9205	Inches 3, 5	8.96	7.76	3.69	3.00	.44	2.25	3.41	8.71	2.90	3.0 to 1	1.81 x .44	11°
1110	Inches 7 1/2, 10	11.09	10.08	5.00	3.25	.56	3.22	5.25	10.84	3.61	3.0 to 1	2.75 x .66	15°

### AF & BW Dimensions (Bore)

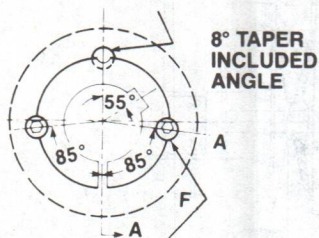
Pulley Size	AF	BW	AF	BW	AF	BW	AF	BW
5675	Inches .500	2.00	.625	2.75	.750	2.75	—	—
7202	Inches .625	2.75	.750	2.75	.875	2.75	1.00	3.38
9205	Inches .875	2.75	1.000	3.88	1.125	3.75	1.375	4.38
1110	Inches 1.125	3.75	1.250	4.12	1.375	4.38	1.625	5.50



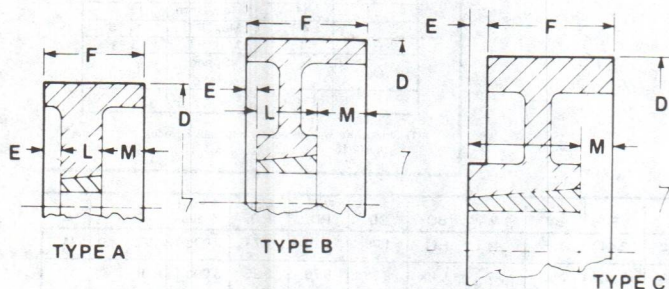
## Dimensions

### FLAT FACE PULLEYS AND BUSHINGS

FOR REMOVING FROM SHAFT:  
BUSHING HALF OF HOLE  
THREADED. HUB HALF OF  
HOLE NOT THREADED.



SET SCREW FOR  
TIGHTENING ON SHAFT.  
HUB HALF OF HOLE THREADED.  
BUSHING HALF OF HOLE  
NOT THREADED.



- (1) Bushings cannot be bored larger than largest bore listed
- (2) Key furnished for these sizes only.

BUSH- ING	OUT- SIDE DIA.	F = 2-1/2 MOTOR PULLEY 5675-7202					F = 3-1/4 MOTOR PULLEY 9205					F = 4-1/4 MOTOR PULLEY 1110-1320				
		TYPE	L	M	E	AP- PROX. SHIP- PING WT. (lb)	TYPE	L	M	E	AP- PROX. SHIP- PING WT. (lb)	TYPE	L	M	E	AP- PROX. SHIP- PING WT. (lb)
2012	5	A	1-1/4	1	1/4	8	...	...	...	...	...	...	...	...	...	...
	6	A	1-1/4	1	1/4	11	...	...	...	...	...	...	...	...	...	...
	7	B	1-1/4	7/8	3/8	12	...	...	...	...	...	...	...	...	...	...
	8	B	1-1/4	7/8	3/8	12	...	...	...	...	...	...	...	...	...	...
	9	B	1-1/4	13/16	7/16	17	...	...	...	...	...	...	...	...	...	...
	10	B	1-1/4	13/16	7/16	20	B	1-1/4	1-3/16	13/16	22	...	...	...	...	...
	11	B	1-1/4	13/16	7/16	21	B	1-1/4	1-3/16	13/16	24	...	...	...	...	...
3020	12	B	1-1/4	13/16	7/16	24	B	1-1/4	1-3/16	13/16	26	B	2	2-3/16	1/16	38
	14	C	2	7/8	3/8	37	B	2	1-3/16	1/16	40	B	2	2-1/8	1/8	46
	16	C	2	7/8	3/8	44	B	2	1-3/16	1/16	48	B	2	2-1/8	1/8	53
	18	C	2	7/8	3/8	47	B	2	1-1/8	1/8	60	B	2	2-1/8	1/8	58
	20	C	2	15/16	7/16	63	B	2	1-1/8	1/8	70	B	2	2-1/8	1/8	56
	22	...	...	...	...	...	B	2	1-3/16	1/16	84	B	2	2-1/8	1/8	93
	24	...	...	...	...	...	B	2	1-1/8	1/8	86	B	2	2-1/8	1/8	98
	26	...	...	...	...	...	...	...	...	...	...	B	2	2-1/8	1/8	109
	28	...	...	...	...	...	...	...	...	...	...	B	2	2-1/8	1/8	119

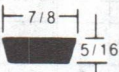
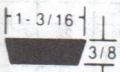
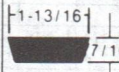
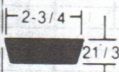
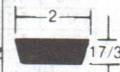
BUSHING NO.	BORE (1)	WEIGHT	BUSHING KEYSET	SHAFT KEYSET
2012	1/2 to 9/16	1.7	1/8 x 1/16	1/8 x 1/16
	5/8 to 7/8	1.6	3/16 x 3/32	3/16 x 3/32
	15/16 to 1-1/4	1.5	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	1.4	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-3/4	1.2	3/8 x 3/16	3/8 x 3/16
	1-13/16 to 1-7/8	1.0	1/2 x 1/4	1/2 x 1/4
	1-15/16 to 2	1.0	1/2 x 3/16 (2)	1/2 x 1/4
3020	15/16 to 1-1/4	6.5	1/4 x 1/8	1/4 x 1/8
	1-5/16 to 1-3/8	6.3	5/16 x 5/32	5/16 x 5/32
	1-7/16 to 1-3/4	6.0	3/8 x 3/16	3/8 x 3/16
	1-13/16 to 2-1/4	5.3	1/2 x 1/4	1/2 x 1/4
	2-5/16 to 2-3/4	4.5	5/8 x 5/16	5/8 x 5/16
	2-3/16 to 3	3.9	3/4 x 1/4 (2)	3/4 x 3/8



# Dimensions

## REEVES VARI-SPEED BELTS

REEVES VARI-SPEED wide section belts are designed and manufactured to REEVES specifications for tensile strength, oil and heat resistance, and static conductance providing the highest efficiency and longest life on adjustable speed applications.

	<b>SIZE 5675</b> (Obsolete) Size 95 	<b>SIZE 7202</b> (Obsolete) Size 96 & 97 	<b>SIZE 9205</b> (Obsolete) Size 98 1/2 & 99 	<b>SIZE 1110</b> (Obsolete) Size 912 	(Obsolete) Size 910 
Nominal Pitch Length	Belt Number	Belt Number	Belt Number	Belt Number	Belt Number
30	014300				
32		103317			
36	014360	103360			
38		103380			
42	014420	103420			
45		103450			
48	014480	103480			
48			113480		
52			113515		
64	014540	103540	113540		
56			113568		
58			113580		
60	014600	103600	113600		200600
62			113623		
64			113640		
66		103660		212660 (1)	200660
68			113680		
72		103720	113720	212720 (1)	200720
77			113720		
78				212780 (1)	200780
80		103800			
82			113827		
83				212840	200840
85			113849		
90			113900	212900	200900
96				212960	200960
102				2121020	
108				2121080	

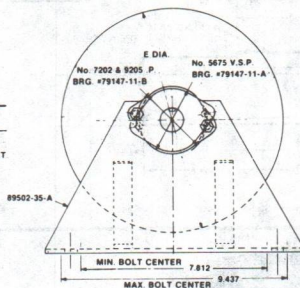
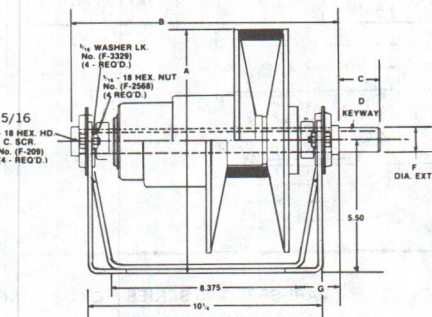
(1) For 10 HP maximum.

# Dimensions

## VARI-SPEED COUNTERSHAFT

The new REEVES VARI-SPEED Countershaft is designed to accept VARI-SPEED Pulley sizes 5675, 7202, and 9205 in motion control applications with compound pulleys CP-5675, CP-7202 and CP-9205. Easy to remove shaft bearings on both ends provide convenient change over for left or right hand output. To obtain C-Flow or S-Flow configurations, only the shaft is moved.

Pulley Size	Bore Size	A	B	C	D	E	F	G
5675	3/4"	8.28	11.77	2.125	3/16" × 3/32"	5.55	3/4"	1.70
7202	1"	9.08	11.77	2.875	1/4" × 1/8"	7.17	1"	1.70
9205	1"	10.12	11.77	2.875	1/4" × 1/8"	9.25	1"	1.70

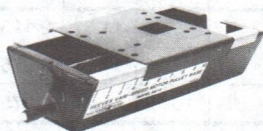




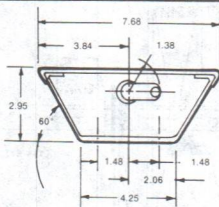
## NEMA MOTOR FRAMES & VARI-SPEED MOTOR BASES

**CURRENT  
NEMA MOTOR  
FRAME & SHAFT  
DIMENSIONS**

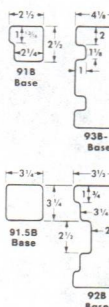
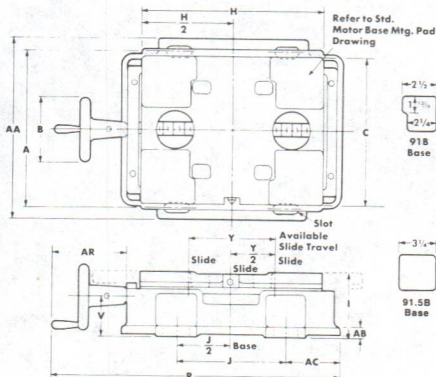
VARI-SPEED MOTOR BASE #5614 (1)



MOTOR MOUNTING CODES	SYMBOL	A	B	C	D
	MOTOR FRAME	48	56	143	145

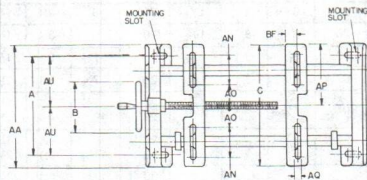


## VARI-SPEED 90 SERIES MOTOR BASE

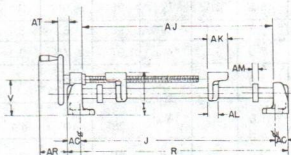


## JR. MOTOR PULLEY BASES

## STANDARD BASE



STANDARD TYPE



Size	A	B	C	I <sup>(1)</sup>	J	R	V <sup>(1)</sup>	AA	AC	AJ	AK	AL
TEL-1	5 1/2	4	7	2 1/8	11 1/4	12 7/8	2 3/8	7	1 3/16	11 1/8	1 3/8	5/8

Size	AM	AN	AO	AP	AQ	AR	AT	AU	BF	Slot
TEL-1	1/2	1 19/32	1 13/64	3 1/2	1 3/32	2 3/8	1	2 3/4	1 3/16	7/16 x 1/2

(1) The dimensions are maximum. May vary to  $\pm 1/16$  in.

Dimension Sheet — 2-46485

## NEW AND OLD NEMA MOTOR DIMENSIONS

## NEW NEMA FRAMES

After 1965 — 56 Frame, Fractional — 143T-284T Integral

Frame Size	Max. A	Min. B	D	E	F	H	N	U	Min. V	W	AB	BA	Key
56	6-5/8	3-7/8	3-1/2	2-7/16	1-1/2	(1)	1-15/16	5/8	1-7/8	1/16	2-3/4	3/16x3/16x1-1/4	
143T	6-1/2	4-7/8	3-1/2	2-3/4	2-1/2	11/32	2-5/16	7/8	2-1/4	1/16	5-3/4	2-1/4	5/16x3/16x1-3/8
145T	6-1/2	5-7/8	3-1/2	2-3/4	2-1/2	11/32	2-5/16	7/8	2-1/4	1/16	5-3/4	2-1/4	3/16x3/16x1-3/8
182T	9	6	4-1/2	3-3/4	2-1/4	7/16	2-15/16	1-1/8	2-1/2	3/16	7-1/4	2-3/4	1/4x1/4x1-3/4
184T	9	7	4-1/2	3-3/4	2-3/4	7/16	2-15/16	1-1/8	2-1/2	3/16	7-1/4	2-3/4	1/4x1/4x1-3/4
213T	10-1/2	7	5-1/4	4-1/4	2-3/4	7/16	3-9/16	1-3/8	3-1/8	3/16	9-1/8	3-1/2	5/16x5/16x2-3/8
215T	10-1/2	8-1/2	5-1/4	4-1/4	3-1/2	7/16	3-9/16	1-3/8	3-1/8	3/16	9-1/8	3-1/2	5/16x5/16x1-3/8
254T	12-1/2	10-1/4	6-1/4	5	4-1/8	9/16	4-1/4	1-5/8	3-3/4	1/4	10-1/16	4-1/4	3/8x3/8x2-7/8
256T	12-1/2	12	6-1/4	5	5	9/16	4-1/4	1-5/8	3-3/4	1/4	10-1/16	4-1/4	3/8x3/8x2-7/8
284T	14	11-1/2	7	5-1/2	4-3/4	9/16	4-7/8	1-7/8	4-3/8	1/4	12-1/16	4-3/4	1/2x1/2x3-1/4

## OLD NEMA FRAMES

Prior to 1965 — 66 Frame, Fractional — 182-286U Integral

Frame Size	Max. A	Min. B	D	E	F	H	N	U	Min. V	W	AB	BA	Key
66	8-3/8	6-1/4	4-1/8	2-15/16	2-1/2	(2)	2-3/8	3/4	2-1/4	1/8	3-1/8	3/16x3/16x1-3/4	
182	9	6-1/2	4-1/2	3-3/4	2-1/4	7/16	2-7/16	7/8	2	3/16	7-1/4	2-3/4	3/16x3/16x1-3/8
184	9	7-1/2	4-1/2	3-3/4	2-3/4	7/16	2-7/16	7/8	2	3/16	7-1/4	2-3/4	3/16x3/16x1-3/8
213	10-1/2	7-1/2	5-1/4	4-1/4	2-3/4	7/16	3-3/16	1-1/8	2-3/4	3/16	8-1/8	3-1/2	1/4x1/4x2
215	10-1/2	9	5-1/4	4-1/4	3-1/2	7/16	3-3/16	1-1/8	2-3/4	3/16	8-1/8	3-1/2	1/4x1/4x2
254U	12-1/2	10-3/4	6-1/4	5	4-1/8	9/16	4	1-3/8	3-1/2	1/4	9-7/8	4-1/4	5/16x5/16x2-3/4
256U	12-1/2	12-1/2	6-1/4	5	5	9/16	4	1-3/8	3-1/2	1/4	9-7/8	4-1/4	5/16x5/16x2-3/4
284U	14	12-1/2	7	5-1/2	4-3/4	9/16	5-1/8	1-5/8	4-5/8	1/4	10-3/4	4-3/4	3/8x3/8x3-3/4

(1) 11/32 x 1 7/32 slot.

(2) 13/32 x 1 21/32 slot.



# Comparison Chart

## CURRENT SR. PULLEYS AND OLDER REEVES PULLEYS

HP	rpm	NEMA Frame	Current Reeves Pulley				Old Style 90 Series				Old Style 900 Series				Old Style 20 Series			
			Model	O.D."	Ratio	B.T.W."	Model	O.D."	Ratio	B.T.W."	Model	O.D."	Ratio	B.T.W."	Model	O.D."	Ratio	B.T.W."
1/4	1800	56	5675	5.5	3:1	7/8	95	5 1/2	3:1	7/8	20	6	3:1	1 3/16	20	6	3:1	1 3/16
1/2	1800	56	5675	5.5	3:1	7/8	95	5 1/2	3:1	7/8	20	6	3:1	1 3/16	20	6	3:1	1 3/16
3/4	1800	56	5675	5.5	3:1	7/8	96	6	3:1	1 3/16	906	6	3:1	1 3/16	25	7 1/2	3:1	1 7/8
1	1800	140	7202	7.0	3:1	1 7/16	97	7 1/2	3:1	1 7/16	907 1/2	7 1/2	3:1	1 7/16	28	7 3/4	3:1	1 13/16
1 1/2	1800	140	7202	7.0	3:1	1 7/16	97	7 1/2	3:1	1 7/16	907 1/2	7 1/2	3:1	1 7/16	28 28 1/2	7 3/4 10	3:1 1 13/16	1 13/16
2	1800	140	7202	7.0	3:1	1 7/16	98 98 1/2	8 10	3:1 4:1	1 7/16 1 13/16	908	8	3:1	1 7/16	28 1/2 33	10 11 1/2	4:1 3:1	1 13/16 2 1/4
3	1800	180	9205	9.0	3:1	1 13/16	99	9 1/2	3:1	1 13/16	909 1/2	9 1/2	3:1	2	33 55	11 1/2 12 1/2	3:1 3:1	2 1/4 2 1/4
5	1800	180	9205	9.0	3:1	1 13/16	910	10	3:1	2	—	—	—	—	55 66	12 1/2 13	3:1 3:1	2 1/4 2 1/4
7 1/2	1800	210	1110	11	3:1	2 3/4	912	12	3:1	2 3/4	—	—	—	—	66 77	13 13	3:1 2:1	2 1/4 2 1/4
10	1800	210	1110	11	3:1	2 3/4	912	12	3:1	2 3/4	—	—	—	—	77	13	2:1	2 1/4
15	1800	250	912-15	12	2:1	2 3/4	—	—	—	—	—	—	—	—	—	—	—	—
20	1800	250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25	1800	280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	1800	280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

When applying a new style REEVES VARI-SPEED Motor Pulley (5675, 7202 . . .) in a replacement application with an old style REEVES VARI-SPEED Motor Pulley be sure to take the difference in Pitch Diameters (P.D.) of the two pulleys into consideration. Since the diameters (and P.D.'s) of the two pulleys will be different the maximum and minimum output speeds will also be different. In addition the belt width may be different for the same HP on some of the older (900 and 20, 30, 50, 60, 70 series) pulleys.

To determine the correct new style REEVES VARI-SPEED Pulley to replace old style REEVES Pulley:

1. Determine the HP, model number, belt top width, thickness and Pitch length, Pitch Diameter of the driven member and type (F.F. pulley on companion sheave), and output speed requirements. (A)
2. Check the above table for the new style REEVES VARI-SPEED Pulley at the HP required. At the same time determine if the belt top width is the same for both the new style and old style REEVES VARI-SPEED Pulley. Note if a new belt is required.
3. Determine if the new style REEVES VARI-SPEED Pulley will deliver the necessary maximum and minimum speeds for the application when coupled to the existing driven member. (B) (C)
4. If the combination of the new style REEVES VARI-SPEED Pulley and the present driven member will deliver the required output speeds complete pricing the new style REEVES VARI-SPEED Pulley. If the belt top width dimensions are different include a new belt.
5. If the combination of the new style REEVES VARI-SPEED Pulley and the existing driven member will not deliver the necessary output speeds, select the correct driven member from the Pulley Selection Tables which will note the correct belt pitch length required for the new driven member. Complete pricing of the new style REEVES VARI-SPEED Pulley, driven member and belt (if required). (B)

- (A) Output speeds of the existing equipment can be measured with a tachometer on the output shaft, thru the use of old selection tables (if available) or by calculation.

Formulas to use to calculate maximum and minimum speeds of the existing equipment are:

$$\text{Maximum Output Speed} = \frac{(\text{Motor Speed}) \times (\text{Maximum P.D. of Motor Pulley})}{\text{P.D. of Driven Member}}$$

$$\text{Minimum Output Speed} = \frac{\text{Maximum Output Speed}}{\text{Motor Pulley Ratio}}$$

$$\text{P.D. of Flat Face Pulley} = \text{O.D. of Flat Face Pulley} \times (2 \times \text{Belt Thickness} - .250")$$

$$\text{P.D. of Companion Sheave} = \text{O.D. of Companion Sheave} - .250"$$

- (B) Output speeds (maximum and minimum) of the driven member when coupled to a new style Reeves Vari-Speed Pulley can be determined from the Pulley Selection Charts. If the P.D. of the driven member is not in the Pulley Selection charts the maximum and minimum speeds can be calculated using the above formulas. If there are required speeds which cannot be found in the Pulley Selection Charts the P.D. of the driven member can be calculated as follows.

P.D. Required for Maximum Speed =

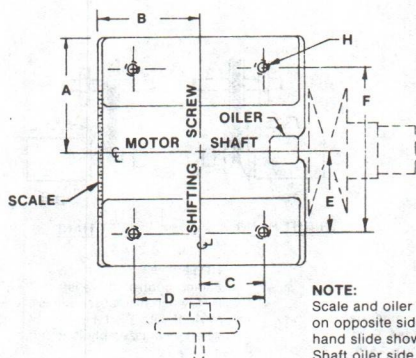
$$\frac{(\text{Motor Speed}) \times (\text{Maximum P.D. of Motor Pulley})}{\text{Maximum rpm Required}}$$

Note: If using the above formula be sure to consider the following:

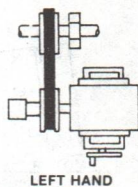
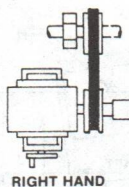
- A. The speed range (max. speed + min. speed) is less than an or equal to the ratio of the new style Reeves Vari-Speed Pulley (3:1).
- B. Flat Face Pulleys are generally used for maximum output speed below motor speed and companion sheaves are generally used for maximum output speed above motor speed.
- (C) If the existing belt can be used with the new style Reeves Vari-Speed Motor Pulley the stops on the motor base may have to be reset to allow the Reeves Vari-Speed Motor Pulley to be moved approximately 1" to 1-1/2" with respect to the driven member. If allowance for moving the Reeves Vari-Speed Motor Pulley closer to the driven member is not made the new drive may not be capable of full speed range.

# Dimensions

## BASE MOTOR MOUNTING DIMENSIONS FOR FLAT FACE PULLEYS



**NOTE:**  
Scale and oiler must be on opposite sides. Right hand slide shown - Mtr. Shaft oiler side. Left hand slide - same drilling - slide reversed 180°.



**NOTE:**  
Facing control, drive is R.H. when disc assembly is to right. Drive is L.H. when disc assembly is to left.

Ref: D-42000-18-E (3/77)

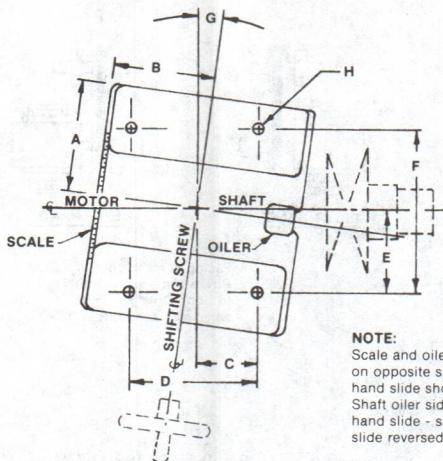
Pulley Base Size	NEMA Motor Series			A	B	C	D	E	F	H - Tap 4 Holes
	T	U	Old							
91-B		56		4 <sup>3</sup> / <sub>16</sub>	3 <sup>23</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	3	2 <sup>7</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub> -18
			66			2 <sup>1</sup> / <sub>2</sub>	5	2 <sup>15</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub> -16
		182				2 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
91.5-B	143T			5	4	2	4	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub> -18
	145T					2 <sup>1</sup> / <sub>2</sub>	5	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>16</sub> -18
	182T	182				2 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
		184				2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
92-B	182T	182		5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
	184T	184				2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
	213T	213				2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
		215				2 <sup>3</sup> / <sub>4</sub>	7	4 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
			224			3 <sup>1</sup> / <sub>4</sub>	6 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	9	3 <sup>3</sup> / <sub>8</sub> -16
			225			3 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	9	3 <sup>3</sup> / <sub>8</sub> -16
93-B-1	213T			7 <sup>3</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
	215T					5 <sup>1</sup> / <sub>4</sub>	7	4 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>8</sub> -16
	254T	254U	254			4 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	5	10	1 <sup>1</sup> / <sub>2</sub> -13
	256T	256U				5	10	5	10	1 <sup>1</sup> / <sub>2</sub> -13
		284U	284			4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	11	1 <sup>1</sup> / <sub>2</sub> -13
						5 <sup>1</sup> / <sub>2</sub>	11	5 <sup>1</sup> / <sub>2</sub>	11	1 <sup>1</sup> / <sub>2</sub> -13
		286U								

\* **NOTE:** For Companion Sheave Installation see page M3-62.



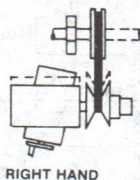
# Dimensions

## BASE MOTOR MOUNTING DIMENSIONS FOR COMPANION SHEAVES

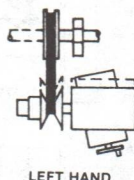


### NOTE:

Scale and oiler must be on opposite sides. Right hand slide shown - Mtr. Shaft oiler side. Left hand slide - same drilling - slide reversed 180°.



RIGHT HAND



LEFT HAND

### NOTE:

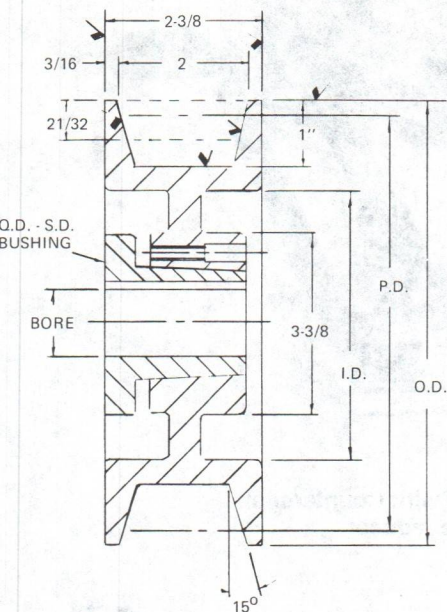
Facing control, drive is R.H. when disc assembly is to right. Drive is L.H. when disc assembly is to left.

Ref: D-42000-18-F (3/77)

Pulley Base Size	NEMA Motor Series			A	B	C	D	E	F	G°	H - Tap 4 Holes
	T	U	Old								
91-B		56		4 <sup>3</sup> / <sub>16</sub>	3 <sup>23</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>2</sub>	3	27 <sup>1</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>2</sub> °	5 <sup>1</sup> / <sub>16</sub> -18
			66			2 <sup>1</sup> / <sub>2</sub>	5	2 <sup>15</sup> / <sub>16</sub>	5 <sup>7</sup> / <sub>8</sub>		3 <sup>1</sup> / <sub>8</sub> -16
91.5-B	143T			5	4	2 <sup>1</sup> / <sub>2</sub>	4	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>2</sub> °	5 <sup>1</sup> / <sub>16</sub> -18
	145T					2 <sup>1</sup> / <sub>2</sub>	5	2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>		5 <sup>1</sup> / <sub>16</sub> -18
	182T	182				2 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>		3 <sup>1</sup> / <sub>8</sub> -16
		184				2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>		3 <sup>1</sup> / <sub>8</sub> -16
92-B	182T	182		5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>2</sub> °	3 <sup>1</sup> / <sub>8</sub> -16
	184T	184				2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>		3 <sup>1</sup> / <sub>8</sub> -16
	213T	213				2 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>		3 <sup>1</sup> / <sub>8</sub> -16
		215				3 <sup>1</sup> / <sub>2</sub>	7	4 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	10°	3 <sup>1</sup> / <sub>8</sub> -16
			224			3 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	9		3 <sup>1</sup> / <sub>8</sub> -16
			225			3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	9		3 <sup>1</sup> / <sub>8</sub> -16
93-B-1	215T			7 <sup>3</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	7	4 <sup>1</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	10°	3 <sup>1</sup> / <sub>8</sub> -16
	254T	254U	254			4 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>4</sub>	5	10		1 <sup>1</sup> / <sub>2</sub> -13
	256T	256U				5	10	5	10		1 <sup>1</sup> / <sub>2</sub> -13
	284T	284U	284			4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	11		1 <sup>1</sup> / <sub>2</sub> -13

# Dimensions

## COMPANION SHEAVE FOR VARI-SPIN PULLEY SIZES 975-T, 1200-T, 1075-D AND 1200-D



### DIMENSIONS

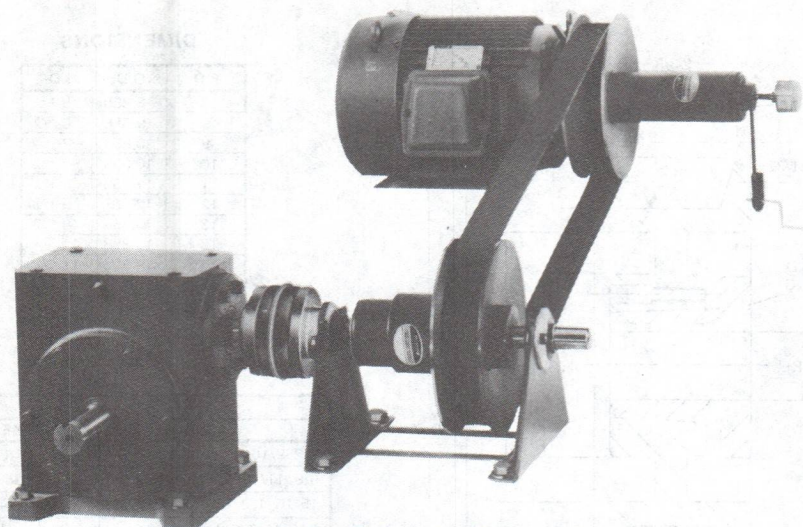
P.D.	O.D.	I.D.
8	8.358	5-1/2
9	9.358	6-1/2
9-1/2	9.858	7
10	10.358	7-1/2
11	11.358	8-1/2
12	12.358	9-1/2
13	13.358	10-1/2
13-1/2	13.858	11
14	14.358	11-1/2
15	15.358	12-1/2
16	16.358	13-1/2
20	20.358	17-1/2

S.D. BUSHINGS	
BORES	KEYWAY
1/2, 9/16	1/8 x 1/16
5/8, 11/16, 3/4, 13/16, 7/8	3/16 x 3/32
15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4	1/4 x 1/8
1-15/16, 1-3/8	5/16 x 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8, 1-11/16	3/8 x 3/16
1-3/4	3/8 x 1/8
1-13/16, 1-7/8	1/2 x 1/16
1-15/16	1/2 x 1/32
2"	NONE

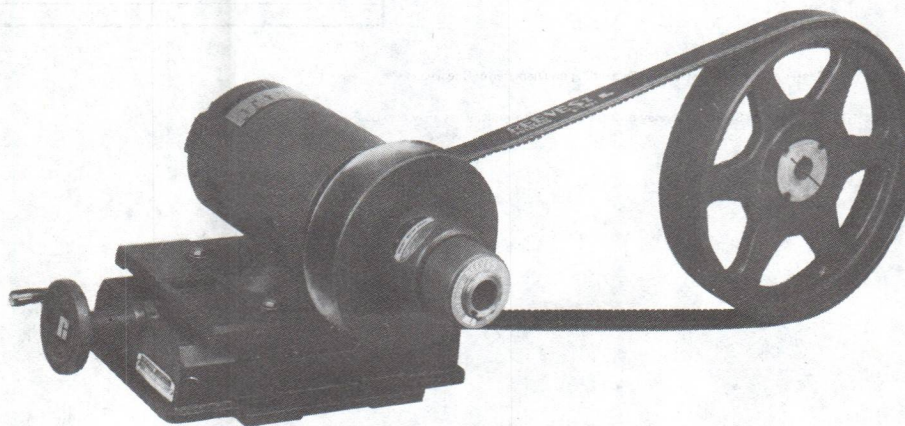
NOTE: Plate Center or Spoke Construction Depending on Diameter of Sheave.

NOTE: 1-15/16 Bore with Shallow Keyway or 2 Inch Bore with no Keyway may also be furnished.

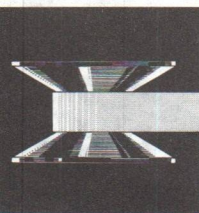




**Compound Pulley Drive with Countershaft  
coupled with right angle reducer**



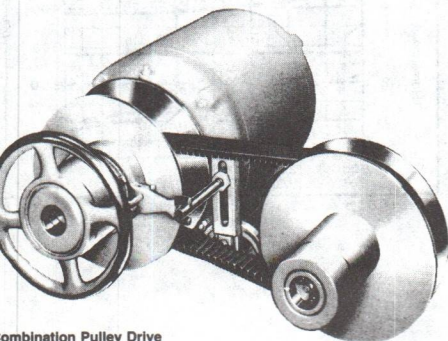
**Vari-Speed Pulley Drive**



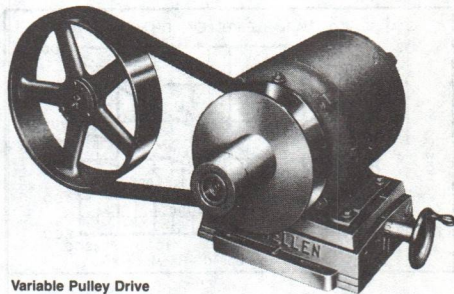
# LEWELLEN

Two great names in adjustable speed pulleys are now available from one dependable source. LEWELLEN Variable and Combination Pulleys are available from REEVES®, industry's number one name in mechanical adjustable speed drives.

LEWELLEN Pulleys are available in fractional through 30 hp range for use with industry standard wide belts. LEWELLEN Pulleys are perfect for medium to heavy duty applications such as conveyors, agricultural equipment, machine tools, mixers, pumps, textile machines, foundry machines, all-weather service applications, and many others. And, LEWELLEN Pulleys are ideal for retrofit on installations with competing pulley drives.



Combination Pulley Drive



Variable Pulley Drive

LEWELLEN Pulleys outperform and outdistance competitive pulley drives. A special cam mechanism assures precise symmetrical alignment of the discs throughout the operating range. The cast iron, balanced discs assure smooth running with minimum belt and disc wear.

LEWELLEN Variable Pulley, adjustable center distance drives—with motor mounted on an adjustable base and a flat face pulley or companion sheave—are available from fractional through 30 hp, with a speed range as wide as 4:1. LEWELLEN Compound Pulley, fixed center distance drives—with motor-mounted adjustable pulley and companion variable pulley—are available from fractional through 30 hp, with a speed range as wide as 10:1. A complete set of options and accessories is available for use with all LEWELLEN Pulley Drives.



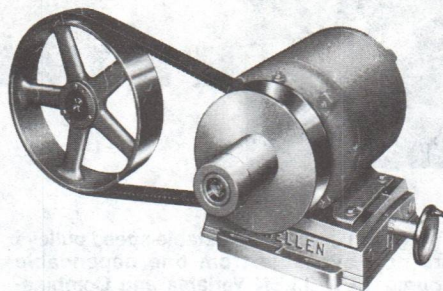
# Selecting the Variable Pulley Drive

## VARIABLE PULLEY HORSEPOWER CHARACTERISTICS

Mounted at the motor shaft, the Variable Pulley is rated at constant torque.

Horsepower rating decreases in direct ratio at speeds slower than fastest driven speed, throughout the speed range.

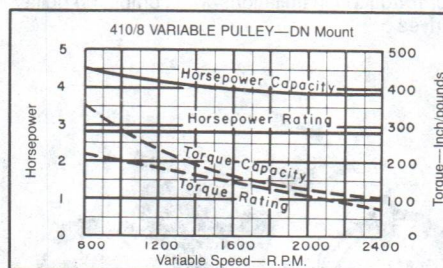
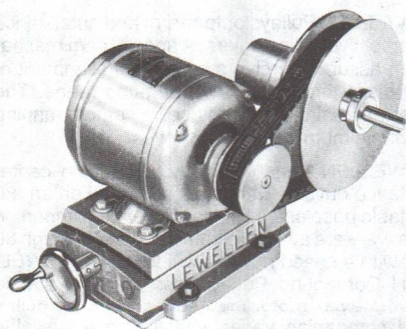
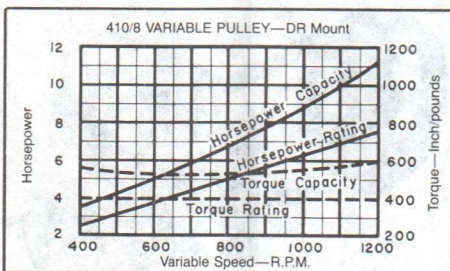
The graph (below) of the 410/8 Variable Pulley, motor mounted, shows horsepower/torque characteristics which are typical for all sizes.



Mounted at the driven shaft, the Variable Pulley is rated at constant horsepower throughout the range of driven shaft speeds.

Horsepower rating and speeds of the Variable Pulley depend upon the diameter of the Companion Sheave, mounted at the motor shaft. Consult with Reliance.

The graph (below) of the 410/8 Variable Pulley, driven shaft mounted, shows horsepower/torque characteristics which are typical for all sizes.



## SELECTING THE COMPONENTS OF THE VARIABLE PULLEY DRIVE (1)

The ratings and selection here apply when the Variable Pulley is mounted on the motor shaft. Consult Reliance for rating when the Variable Pulley is mounted on the driven shaft.

For horsepower, speed and frame size of the motor, select the Variable Pulley, Variable Belt and Adjustable Base from the table below.

Complete specifications are:

Variable Pulley.....size, bore

Variable Belt.....size, pitch length (2)

Adjustable Base.....size, shifting device

Companion Pulley.....diameter, face, bore

Variable Pulley has a constant torque rating. Capacity of the drive at fastest speed equals motor rating. At slower speeds, rating reduces in direct ratio.

For faster driven speeds than listed, consult Reliance about companion sheaves, centers and speeds.

VARIABLE PULLEY SIZE	SPEED RANGE	VARIABLE BELT SIZE	MOTOR RATING		U NEMA FRAME	ADJUSTABLE BASE SIZE	T NEMA FRAME	ADJUSTABLE BASE SIZE
			HP at 1800 rpm	HP at 1200 rpm				
406	3:1	406	1/2	1/3	48	5614, TEL-1	48	5614, TEL-1
406	3:1	406	3/4	1/2	56	91-B, 5614, TEL-1	56	91-B, 5614, TEL-1
408	3:1	408	1	3/4	182	91.5-B	143T	91.5-B
408	3:1	408	1 1/2	1	184	91.5-B	145T	91.5-B
409	3:1	409	2	1 1/2	184	91.5-B	145T-182T	91.5-B
411	4:1	411	2	1 1/2	184	91.5-B	145T-182T	91.5-B
409	3:1	409	3	2	213	92-B	182T-184T	92-B
411	4:1	411	3	2	213	92-B	182T-184T	92-B
410	3:1	410	5	3	215	92-B	184T-213T	92-B
410/8	3:1	410	7 1/2	5	254U	93-B1	213T-215T	93-B1
412	3:1	412	10	7 1/2	256U	93-B1	215T-254T	93-B1
412/15	3:1	412	15	10	284U	93-B1	254T-256T	93-B1
414	3:1	414	20	15	286U-324U	412	256T-284T	412
414/25	3:1	414	25 & 30	20	324U-326U	412	284T-286T	412

(2) The variable belt's pitch length is calculated as following:

$$L = 2C + 1.57(D + d) + \frac{(D - d)^2}{4C}$$

where, L = Variable belt pitch length, in

C = Center distance, in

D = Pitch diameter of the larger of the variable pulley or the companion pulley, in

d = Pitch diameter of the smaller of the variable pulley or the companion pulley, in



# LEWELLEN Adjustable Center Variable Pulley Drive

## 406 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—3:1 SPEED RANGE

### HP RATINGS

1/4, 1/2, 3/4 HP @ 1740 RPM

1/4, 1/2 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds rpm		Variable Belt Pitch Length								Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	35.9	42.0	47.9	54.0	59.9	65.9	71.9		
	Shaft Center Distance—Inches										
6	1485 495	960 320	8.7 11.3	11.7 14.4	14.7 17.4	17.7 20.5	20.7 23.4	23.7 26.4	26.7 29.5	6	
7	1275 425	840 280	7.8 10.4	10.9 13.5	13.8 16.5	16.9 19.6	19.9 22.6	22.9 25.6	25.9 28.6	7	
8	1125 375	735 245		10.0 12.6	13.0 15.6	16.1 18.7	19.0 21.7	22.0 24.8	25.0 27.8	8	
9	1005 335	660 220		9.2 11.6	12.2 14.7	15.2 17.8	18.2 20.9	21.2 23.9	24.2 26.9	9	
10	900 300	585 195		8.2 10.6	11.3 13.7	14.4 16.9	17.4 19.9	20.4 23.0	23.4 26.1	10	
11	825 275	540 180			10.3 12.7	13.5 16.0	16.5 19.0	19.5 22.1	22.5 25.2	11	
12	765 255	495 165			9.3 11.6	12.5 15.0	15.6 18.1	18.6 21.2	21.7 24.2	12	
14	660 220	420 140				10.5 12.8	13.7 16.0	16.8 19.2	19.9 22.4	14	

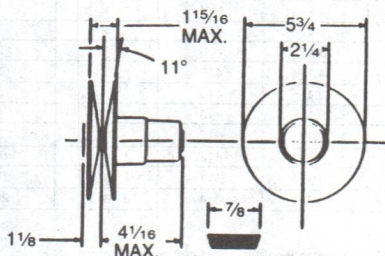
### 406 VARIABLE PULLEY

### Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1/2	LV4060008	190.00	6
5/8	LV4060010	190.00	6
3/4	LV4060012	190.00	6

### Discount—D-49e

Pulley Modification List Additions	
Non Std. Bore Max. Bore (in)	\$180.00 3/4
MINIMUM ORDER Quantity of 10 Required.	



PD MAX. = 5.50  
MIN. = 1.62

### BELTS FOR 406 PULLEY

### Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
35.9	014360	H95124	32.00
40.0	406-40.0	H95452	34.00
42.0	014420	H95125	35.50
46.2	406-46.2	H95453	36.50
47.9	014480	H95126	37.00
54.0	014540	H95127	41.00
59.9	014600	H95128	44.50
65.9	406-65.9	H95454	48.00
71.9	406-71.9	H95455	52.00
77.9	406-77.9	H95456	56.00

# LEWELLEN Adjustable Center Variable Pulley Drive

## 406 VARIABLE PULLEY WITH FLAT FACE PULLEY

### TL™ FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only	
			Ordering Number	List Price	Ordering Number	List Price
6	2.5	2012	Specify Rim	\$ 83	H95058	\$ 73
7	2.5	2012	Number and	87	H95059	77
8	2.5	2012	Ordering	94	H95060	84
9	2.5	2012	Number of	100	H95061	90
10	2.5	2012	Appropriate	108	H95062	98
11	2.5	2012	Bushing	111	H95063	101
12	2.5	2012		117	H95064	107
14	2.5	3020		133	H95065	115

## SIZE 2012 TL BUSHINGS—\$10 List Ea.

Approx. Wt. 2#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1/2	H95085	1 1/4	H95094
5/8	H95086	1 3/8	H95095
1 1/16	H95087	1 7/16	H95096
3/4	H95088	1 1/2	H95097
7/8	H95089	1 5/8	H95098
1 1/16	H95090	1 11/16	H95099
1	H95091	1 3/4	H95100
1 1/8	H95092	1 7/8	H95101
1 1/16	H95093	1 15/16	H95102

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49j

Bore	Stock No.	Bore	Stock No.
1 1/16	H95105	1 5/8	H95114
1	H95106	1 11/16	H95115
1 1/8	H95107	1 3/4	H95116
1 3/16	H95108	1 7/8	H95117
1 1/4	H95109	1 15/16	H95118
1 5/16	H95110	2	H95119
1 3/8	H95111	2 1/16	H95120
1 7/16	H95112	2 1/4	H95121
1 1/2	H95113	2 7/16	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Discount D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
91-B	56, 66	H95043	\$247	18
5614	48, 56, 145T	H95221	120	22
TEL-1	48, 56, 140T	H95048	175	11

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	91-B-EMC	H95215	\$1451	40

(1) With P/B Station and O/L Disconnect Switch.

### 90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)

Drilled and Tapped for Motor	\$ 27.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control Shifting Chain/Ft.	\$ 142.00
Extended Control with 5' Rod	\$ 5.50
Additional Rod Length/Ft.	\$ 137.00
	\$ 5.50

Refer to pages M3-40 thru M3-50, for additional details and other modifications.



# LEWELLEN Adjustable Center Variable Pulley Drive

## 408 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—3:1 SPEED RANGE

### HP RATINGS

1, 1½ HP @ 1740 RPM

¾, 1 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds —rpm		Variable Belt Pitch Length					Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	42.6	48.4	54.4	60.4	66.6	
			Shaft Center Distance—Inches					
8	1500 500	975 325	8.7 12.2	11.6 15.2	14.6 18.3	17.6 21.3	20.7 24.4	8
9	1335 445	870 290		10.7 14.3	13.8 17.4	16.8 20.4	19.9 23.6	9
10	1215 405	795 265		9.9 13.3	12.9 16.4	15.9 19.5	19.0 22.7	10
11	1110 370	720 240			12.1 15.5	15.1 18.6	18.2 21.8	11
12	1020 340	660 220			11.1 14.5	14.2 17.7	17.4 20.9	12
14	870 290	570 190				12.4 15.6	15.6 18.9	14
16	780 260	510 170					13.6 16.9	16

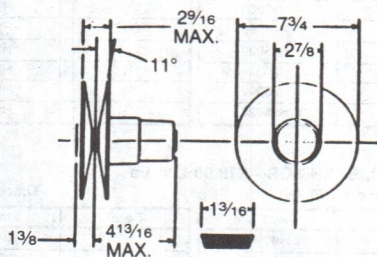
## 408 VARIABLE PULLEY

Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
¾	LV4080012	251.00	11
7/8	LV4080014	251.00	11
1	LV4080016	251.00	11

Discount—D-49e

Pulley Modification List Additions	
Non Std. Bore Max. Bore (in)	\$180.00 1
MINIMUM ORDER Quantity of 10 Required.	



PD MAX. = 7.50  
MIN. = 2.21

## BELTS FOR 408 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
40.6	408-40.6	H95459	53.00
41.7	408-41.7	H95460	53.50
42.6	103420	H95137	54.00
44.3	408-44.3	H95461	54.00
45.4	103450	H95139	54.50
48.4	103480	H95140	55.50
54.4	103540	H95142	58.00
60.4	103600	H95143	61.00
64.6	408-64.6	H95462	62.50
66.6	103660	H95145	64.00
75.0	408-75.0	H95463	65.50
75.3	408-75.3	H95464	66.50

# EWELLEN Adjustable Center Variable Pulley Drive

## 08 VARIABLE PULLEY WITH FLAT FACE PULLEY

### FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only	
			Ordering Number	List Price	Ordering Number	List Price
8	2.5	2012	Specify Rim	\$ 94	H95060	\$ 84
9	2.5	2012	Number and	100	H95061	90
10	2.5	2012	Ordering	108	H95062	98
11	2.5	2012	Number of	111	H95063	101
12	2.5	2012	Appropriate	117	H95064	107
14	2.5	3020	Bushing	133	H95065	115
16	2.5	3020		152	H95066	134

## SIZE 2012 TL BUSHINGS—\$10 List Ea.

Approx. Wt. 2#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1/2	H95085	1 1/4	H95094
3/8	H95086	1 3/8	H95095
1 1/16	H95087	1 7/16	H95096
3/4	H95088	1 1/2	H95097
7/8	H95089	1 5/8	H95098
1 5/16	H95090	1 11/16	H95099
1	H95091	1 3/4	H95100
1 1/8	H95092	1 7/8	H95101
1 1/2	H95093	1 9/8	H95102

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49j

Bore	Stock No.	Bore	Stock No.
1 5/16	H95105	1 5/8	H95114
1	H95106	1 11/16	H95115
1 1/8	H95107	1 3/4	H95116
1 3/16	H95108	1 7/8	H95117
1 1/4	H95109	1 9/8	H95118
1 5/16	H95110	2	H95119
1 3/8	H95111	2 3/16	H95120
1 7/16	H95112	2 1/4	H95121
1 1/2	H95113	2 7/16	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
91-5B	182, 184, 143T, 145T, 182T	H95044	\$274	24
5614	48, 56, 145T	H95221	120	22
TEL-1	48, 56, 140T	H95048	175	11

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	91.5-B-EMC	H95216	\$1477	42

(1) With P/B Station and O/L Disconnect Switch.

Discount D-49c

90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)	
Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control Shifting Chain/Ft.	\$ 142.00
Extended Control with 5' Rod Additional Rod Length/Ft.	\$ 5.50
Extended Control with 5' Rod Additional Rod Length/Ft.	\$ 137.00
Additional Rod Length/Ft.	\$ 5.50
Refer to pages M3-40 thru M3-50, for additional details and other modifications.	



# LEWELLEN Adjustable Center Variable Pulley Drive

## 409 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—3:1 SPEED RANGE

HP RATINGS  
2, 3 HP @ 1740 RPM  
1½, 2 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds rpm		Variable Belt Pitch Length							Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	48.4	52.1	54.4	60.4	66.6	72.6	80.6	
	Shaft Center Distance—Inches									
9	1545 515	1005 335	9.7 13.9	11.6 15.8	12.7 17.0	15.7 20.0	18.8 23.2	21.8 26.2	25.8 30.2	9
10	1410 470	915 305		10.8 14.9	11.9 16.1	14.9 19.2	18.0 22.3	21.0 25.4	25.0 29.4	10
11	1290 430	840 280			11.1 15.1	14.1 18.2	17.2 21.4	20.2 24.5	24.2 28.5	11
12	1195 395	765 255				13.3 17.3	16.4 20.5	19.4 23.6	23.4 27.7	12
14	1020 340	660 220					14.6 18.6	17.7 21.7	21.7 25.8	14
16	900 300	585 195					12.7 16.5	15.9 19.7	20.0 24.0	16
18	795 265	525 175						13.9 17.6	18.1 22.0	18
20	720 240	480 160							16.1 19.8	20

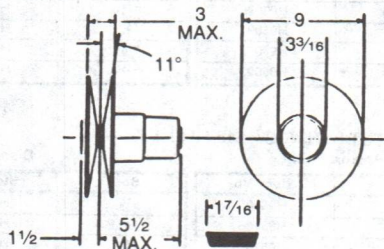
### 409 VARIABLE PULLEY

Discount—D49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
7/8	LV4090014	312.00	17
1	LV4090016	312.00	17
1½	LV4090018	312.00	17

Discount—D49e

Pulley Modification List Additions	
Non Std. Bore Max. Bore (in)	\$180.00 1½
MINIMUM ORDER Quantity of 10 Required.	



PD MAX. = 8.75  
MIN. = 2.54

### BELTS FOR 409 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
48.4	107480	H95155	74.00
52.1	107515	H95156	75.00
54.4	107540	H95157	76.50
60.4	107600	H95158	78.00
66.6	107660	H95159	80.00
68.6	409-68.6	H95467	82.00
72.6	107720	H95162	84.50
80.6	107800	H95163	89.00
88.5	409-88.5	H95468	93.00
100.6	409-100.6	H95469	99.00

# LEWELLEN Adjustable Center Variable Pulley Drive

## 409 VARIABLE PULLEY WITH FLAT FACE PULLEY

### TL FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only	
			Ordering Number	List Price	Ordering Number	List Price
9	2.5	2012	Specify Rim	\$100	H95061	\$ 90
10	2.5	2012	Number and	108	H95062	98
11	2.5	2012	Ordering	111	H95063	101
12	2.5	2012	Number of	117	H95064	107
14	2.5	3020	Appropriate	133	H95065	115
16	2.5	3020	Bushing	152	H95066	134
18	2.5	3020		175	H95067	157
20	2.5	3020		238	H95068	220

## SIZE 2012 TL BUSHINGS—\$10 List Ea.

Approx. Wt. 2#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1/2	H95085	1 1/4	H95094
5/8	H95086	1 3/8	H95095
1 1/16	H95087	1 7/8	H95096
3/4	H95088	1 1/2	H95097
7/8	H95089	1 5/8	H95098
1 5/16	H95090	1 11/16	H95099
1	H95091	1 3/4	H95100
1 1/8	H95092	1 7/8	H95101
1 3/16	H95093	1 15/16	H95102

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1 5/16	H95105	1 5/8	H95114
1	H95106	1 11/16	H95115
1 1/8	H95107	1 3/4	H95116
1 3/16	H95108	1 7/8	H95117
1 1/4	H95109	1 15/16	H95118
1 5/16	H95110	2	H95119
1 3/8	H95111	2 3/16	H95120
1 7/16	H95112	2 1/4	H95121
1 1/2	H95113	2 7/16	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
91.5-B	182, 184, 143T, 145T, 182T	H95044	\$274	24
92-B	213, 215, 182T, 184T, 213T	H95045	323	35
5614	48, 56, 145T	H95221	120	22
TEL-1	48, 56, 140T	H95048	175	11

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	91.5-B-EMC	H95216	\$1477	42
Standard	110 — 125	92-B-EMC	H95217	1526	100

(1) With P/B Station and O/L Disconnect Switch.

Discount D-49c

90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)	
Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control	\$ 142.00
Shifting Chain/Ft.	\$ 5.50
Extended Control with 5' Rod	\$ 137.00
Additional Rod Length/Ft.	\$ 5.50
Refer to pages M3-40 thru M3-50, for additional details and other modifications.	



# LEWELLEN Adjustable Center Variable Pulley Drive

## 411 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—4:1 SPEED RANGE

HP RATINGS  
2, 3 HP @ 1740 RPM  
1½, 2 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds —rpm		Variable Belt Pitch Length						Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	60.7	64.7	68.7	72.7	85.6	96.7	
	Shaft Center Distance—Inches								
11	1560 390	1020 255	12.7 18.4	14.7 20.5	16.7 22.6	18.7 24.6	25.1 31.1	30.7 36.7	11
12	1440 360	940 235	11.9 17.5	13.9 19.6	15.9 21.6	17.9 23.7	24.3 30.3	29.9 35.9	12
14	1240 310	820 205			14.2 19.7	16.2 21.8	22.7 28.5	28.2 34.1	14
16	1100 275	720 180				14.4 19.8	21.0 26.6	26.6 32.3	16
18	980 245	640 160					19.2 24.6	24.9 30.4	18
20	880 220	580 145					17.3 22.6	23.0 28.5	20
22	800 200	520 130						21.2 26.4	22

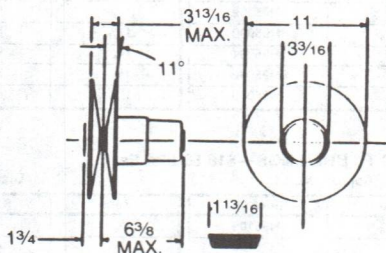
### 411 VARIABLE PULLEY

Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
7/8	LV4110014	350.00	24
1	LV4110016	350.00	24
1 1/8	LV4110018	350.00	24

Discount—D-49e

Pulley Modification List Additions		
Non Std. Bore		\$180.00
Max. Bore (in)	1 1/8	
MINIMUM ORDER		
Quantity of 10 Required.		



PD MAX. = 10.75  
MIN. = 2.65

### BELTS FOR 411 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
60.7	113600	H95175	97.00
64.7	113640	H95178	98.50
68.7	113680	H95180	101.50
72.7	113720	H95182	104.50
77.7	113770	H95183	110.00
85.6	113849	H95185	115.00
90.7	113900	H95187	119.50
96.7	113960	H95478	124.00

# LEWELLEN Adjustable Center Variable Pulley Drive

## 11 VARIABLE PULLEY WITH FLAT FACE PULLEY

### TL FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only		
			Ordering Number	List Price	Ordering Number	List Price	Approx. Wt.
11	3.25	2012	Specify Rim	\$125	H95070	\$115	22
12	3.25	2012	Number and	134	H95071	124	24
14	3.25	3020	Ordering	152	H95072	134	34
16	3.25	3020	Number of	167	H95073	149	43
18	3.25	3020	Appropriate	200	H95074	182	48
20	3.25	3020	Bushing	257	H95075	239	58
22	3.25	3020		315	H95076	297	67

## SIZE 102 TL BUSHINGS—\$10 List Ea.

Approx. Wt. 2#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1/2	H95085	1 1/4	H95094
5/8	H95086	1 3/8	H95095
1 1/16	H95087	1 7/8	H95096
3/4	H95088	1 1/2	H95097
7/8	H95089	1 5/8	H95098
1 5/16	H95090	1 11/16	H95099
1	H95091	1 3/4	H95100
1 1/8	H95092	1 7/8	H95101
1 3/8	H95093	1 15/16	H95102

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49j

Bore	Stock No.	Bore	Stock No.
1 5/16	H95105	1 3/8	H95114
1	H95106	1 11/16	H95115
1 1/8	H95107	1 3/4	H95116
1 7/16	H95108	1 7/8	H95117
1 1/4	H95109	1 15/16	H95118
1 5/16	H95110	2	H95119
1 3/8	H95111	2 7/16	H95120
1 7/8	H95112	2 1/4	H95121
1 1/2	H95113	2 7/8	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Discount D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
91.5-B	182, 184, 143T, 145T, 182T	H95044	\$274	24
92-B	213, 215, 182T, 184T, 213T	H95045	323	35
5614	48, 56, 145T	H95221	120	22
TEL-1	48, 56, 140T	H95048	175	11

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	91.5-B-EMC	H95216	\$1477	42
Standard	110 — 125	92-B-EMC	H95217	1526	100

### 90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)

Drilled and Tapped for Motor Station	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control Shifting Chain/Ft.	\$ 142.00
	\$ 5.50
Extended Control with 5' Rod Additional Rod Length/Ft.	\$ 137.00
	\$ 5.50

Refer to pages M3-40 thru M3-50 for additional details and other modifications.

(1) With P/B Station and O/L Disconnect Switch.



# LEWELLEN Adjustable Center Variable Pulley Drive

## 410 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—3:1 SPEED RANGE

HP RATINGS  
5 HP @ 1740 RPM  
3 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds rpm		Variable Belt Pitch Length								Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	60.5	66.5	72.5	78.5	84.5	90.5	96.5		
			Shaft Center Distance—Inches								
10	1560 520	1020 340	14.3 19.1	17.3 22.1	20.3 25.2	23.3 28.2	26.3 31.2	29.3 34.2	32.3 37.3	10	
11	1425 475	930 310	13.5 18.2	16.5 21.3	19.5 24.3	22.5 27.3	25.5 30.4	28.5 33.4	31.5 36.4	11	
12	1320 440	855 285	12.7 17.2	15.7 20.3	18.7 23.4	21.7 26.5	24.7 29.5	27.7 32.5	30.7 35.6	12	
14	1140 380	735 245		14.0 18.4	17.0 21.5	20.1 24.6	23.1 27.7	26.1 30.8	29.1 33.8	14	
16	1005 335	660 220			15.2 19.6	18.3 22.8	21.4 25.9	24.4 28.9	27.4 32.0	16	
18	900 300	585 195				16.5 20.7	19.5 23.9	22.6 27.1	25.7 30.2	18	
20	810 270	525 175					17.7 21.9	20.8 25.1	23.9 28.3	20	
22	735 245	480 160						18.8 23.0	22.0 26.2	22	

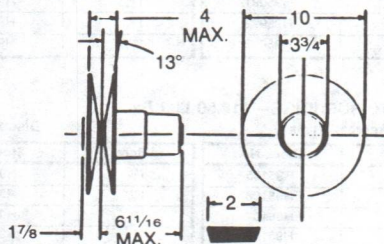
## 410 VARIABLE PULLEY

Discount—D49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
1 1/8	LV4100018	433.00	24
1 1/4	LV4100020	433.00	24
1 3/8	LV4100022	433.00	24

Discount—D-49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 7/16
MINIMUM ORDER	
Quantity of 10 Required.	



PD MAX. = 9.73  
MIN. = 2.86

## BELTS FOR 410 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	Reeves List Price \$
54.5	410-54.5	H95473	138.50
58.5	410-58.5	H95474	142.50
60.5	200600	H95192	148.50
66.5	200660	H95193	150.00
72.5	200720	H95194	158.00
78.5	200780	H95195	167.50
84.5	200840	H95196	179.00
90.5	200900	H95197	191.50
96.5	200960	H95198	204.50
102.5	410-102.5	H95475	216.50
108.6	410-108.6	H95476	228.50

# LEWELLEN Adjustable Center Variable Pulley Drive

## 410 VARIABLE PULLEY WITH FLAT FACE PULLEY

### TL FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only		
			Ordering Number	List Price	Ordering Number	List Price	Approx. Wt.
10	3.25	2012	Specify Rim	\$115	H95069	\$105	20
11	3.25	2012	Number and	125	H95070	115	22
12	3.25	2012	Ordering	134	H95071	124	24
14	3.25	3020	Number of	152	H95072	134	34
16	3.25	3020	Appropriate	167	H95073	149	43
18	3.25	3020	Bushing	200	H95074	182	48
20	3.25	3020		257	H95075	239	58
22	3.25	3020		315	H95076	297	67

## SIZE 2012 TL BUSHINGS—\$10 List Ea.

Approx. Wt. 2#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1/2	H95085	1 1/4	H95094
5/8	H95086	1 3/8	H95095
1 1/16	H95087	1 7/16	H95096
3/4	H95088	1 1/2	H95097
7/8	H95089	1 5/8	H95098
1 5/16	H95090	1 11/16	H95099
1	H95091	1 3/4	H95100
1 1/8	H95092	1 7/8	H95101
1 3/16	H95093	1 15/16	H95102

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1 5/16	H95105	1 5/8	H95114
1	H95106	1 11/16	H95115
1 1/8	H95107	1 3/4	H95116
1 3/16	H95108	1 7/8	H95117
1 1/4	H95109	1 15/16	H95118
1 5/16	H95110	2	H95119
1 3/8	H95111	2 3/16	H95120
1 7/16	H95112	2 1/4	H95121
1 1/2	H95113	2 7/16	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Discount D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
92-B	213, 215, 182T, 184T, 213T	H95045	\$323	35

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	92-B-EMC	H95217	\$1526	100

(1) With P/B Station and O/L Disconnect Switch.

### 90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)

Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control Shifting Chain/Ft.	\$ 142.00
Extended Control with 5' Rod	\$ 137.00
Additional Rod Length/Ft.	\$ 5.50

Refer to pages M3-40 thru M3-50 for additional details and other modifications.



# LEWELLEN Adjustable Center Variable Pulley Drive

## 410/8 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—3:1 SPEED RANGE

HP RATINGS  
7½ HP @ 1740 RPM  
5 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds —rpm		Variable Belt Pitch Length						Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	66.5	72.5	78.5	84.5	90.5	96.5	
			Shaft Center Distance—Inches						
14	1140 380	735 245	14.0 18.4	17.0 21.5	20.1 24.6	23.1 27.7	26.1 30.8	29.1 33.8	14
16	1005 335	660 220		15.2 19.6	18.3 22.8	21.4 25.9	24.4 28.9	27.4 32.0	16
18	900 300	585 195			16.5 20.7	19.5 23.9	22.6 27.1	25.7 30.2	18
20	810 270	525 175				17.7 21.9	20.8 25.1	23.9 28.3	20
22	735 245	480 160					18.8 23.0	22.0 26.2	22

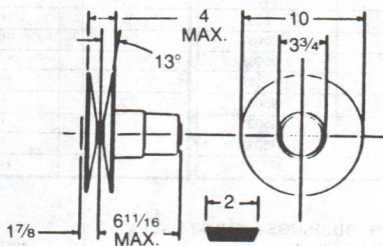
### 410/8 VARIABLE PULLEY

Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1½	LV4100818	460.00	24
1¼	LV4100820	460.00	24
1⅜	LV4100822	460.00	24

Discount—D49e

Pulley Modification List Additions	
Non Std. Bore Max. Bore (in)	\$180.00 1⅞
MINIMUM ORDER Quantity of 10 Required.	



PD MAX. = 9.73  
MIN. = 2.86

### BELTS FOR 410/8 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
66.5	200660	H95193	150.00
72.5	200720	H95194	158.00
78.5	200780	H95195	167.50
84.5	200840	H95196	179.00
90.5	200900	H95197	191.50
96.5	200960	H95198	204.50
102.5	410-102.5	H95475	216.50
108.6	410-108.6	H95476	228.50

# LEWELLEN Adjustable Center Variable Pulley Drive

## 410/8 VARIABLE PULLEY WITH FLAT FACE PULLEY

### TL FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only		
			Ordering Number	List Price	Ordering Number	List Price	Approx. Wt.
14	3.25	3020	Specify Rim Number and Ordering Number of Appropriate Bushing	\$152	H95072	\$134	34
16	3.25	3020		167	H95073	149	43
18	3.25	3020		200	H95074	182	48
20	3.25	3020		257	H95075	239	58
22	3.25	3020		315	H95076	297	67

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1 <sup>1</sup> / <sub>16</sub>	H95105	1 <sup>5</sup> / <sub>8</sub>	H95114
1	H95106	1 <sup>1</sup> / <sub>8</sub>	H95115
1 <sup>1</sup> / <sub>8</sub>	H95107	1 <sup>3</sup> / <sub>4</sub>	H95116
1 <sup>3</sup> / <sub>16</sub>	H95108	1 <sup>7</sup> / <sub>8</sub>	H95117
1 <sup>1</sup> / <sub>4</sub>	H95109	1 <sup>1</sup> / <sub>2</sub>	H95118
1 <sup>9</sup> / <sub>16</sub>	H95110	2	H95119
1 <sup>3</sup> / <sub>8</sub>	H95111	2 <sup>1</sup> / <sub>16</sub>	H95120
1 <sup>7</sup> / <sub>16</sub>	H95112	2 <sup>1</sup> / <sub>4</sub>	H95121
1 <sup>1</sup> / <sub>2</sub>	H95113	2 <sup>7</sup> / <sub>16</sub>	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
92-B	213, 215, 182T, 184T, 213T	H95045	\$323	35
93-B1	254U, 256U, 284U, 213T, 215T, 254T, 256T	H95046	651	80

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	92-B-EMC	H95217	\$1526	100
Standard	110 — 125	93-B1-EMC	H95218	1778	115

(1) With P/B Station and O/L Disconnect Switch.

### Discount D-49c

90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)	
Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control	\$ 142.00
Shifting Chain/Ft.	\$ 5.50
Extended Control with 5' Rod	\$ 137.00
Additional Rod Length/Ft.	\$5.50 (92-B), \$7.50 (93-B1)
Refer to pages M3-40 thru M3-50 for additional details and other modifications.	



# LEWELLEN Adjustable Center Variable Pulley Drive

## 412 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—3:1 SPEED RANGE

HP RATINGS  
10 HP @ 1740 RPM  
7½ HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds rpm		Variable Belt Pitch Length								Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	67.0	73.0	79.0	85.0	91.0	97.0	103.0		
										Shaft Center Distance—Inches	
12	1545 515	1020 340	14.1 19.7	17.1 22.8	20.1 25.9	23.1 28.9	26.1 31.9	29.1 35.0	32.1 38.0	12	
14	1350 450	885 295		15.5 21.0	18.5 24.0	21.5 27.1	24.5 30.2	27.5 33.2	30.5 36.3	14	
16	1185 395	780 260			16.8 22.2	19.8 25.3	22.8 28.4	25.9 31.4	28.9 34.5	16	
18	1065 355	690 230				18.1 23.3	21.1 26.5	24.2 29.6	27.2 32.7	18	
20	960 320	630 210				16.2 21.3	19.3 24.5	22.4 27.6	25.4 30.8	20	
22	870 290	570 190					17.4 22.4	20.5 25.6	23.6 28.8	22	
24	810 270	525 175						18.5 23.4	21.7 26.7	24	

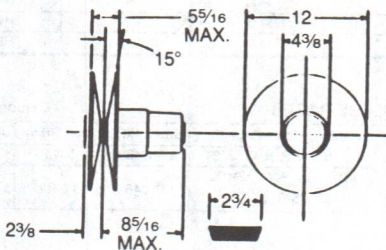
### 412 VARIABLE PULLEY

Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1¼	LV4120020	593.00	42
1½	LV4120022	593.00	42
1¾	LV4120025	593.00	42

Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1½/16
MINIMUM ORDER Quantity of 10 Required.	



PD MAX. = 11.68  
MIN. = 3.74

### BELTS FOR 412 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
63.0	412-63.0	H95483	198.00
66.0	412-66.0	H95484	207.00
67.0	212660	H95202	211.50
69.0	412-69.0	H95485	217.00
70.0	412-70.0	H95486	220.00
73.0	212720	H95204	229.50
74.0	412-74.0	H95487	235.00
79.0	212780	H95205	250.00
85.0	212840	H95206	268.50
91.0	212900	H95207	285.50
97.0	212960	H95208	307.50
103.0	2121020	H95209	326.00
109.0	2121080	H95210	346.00
115.0	412-115.0	H95488	361.00
132.0	412-132.0	H95489	414.00

# LEWELLEN Adjustable Center Variable Pulley Drive

## 412 VARIABLE PULLEY WITH FLAT FACE PULLEY

### TL FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only		
			Ordering Number	List Price	Ordering Number	List Price	Approx. Wt.
12	4.25	3020	Specify Rim	\$156	H95078	\$138	32
14	4.25	3020	Number and	179	H95079	161	46
16	4.25	3020	Ordering	234	H95080	216	48
18	4.25	3020	Number of	261	H95081	243	53
20	4.25	3020	Appropriate	286	H95082	268	69
22	4.25	3020	Bushing	336	H95083	318	85
24	4.25	3020		410	H95084	392	93

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
1 <sup>5</sup> / <sub>16</sub>	H95105	1 <sup>5</sup> / <sub>8</sub>	H95114
1	H95106	1 <sup>11</sup> / <sub>16</sub>	H95115
1 <sup>1</sup> / <sub>8</sub>	H95107	1 <sup>3</sup> / <sub>4</sub>	H95116
1 <sup>3</sup> / <sub>16</sub>	H95108	1 <sup>7</sup> / <sub>8</sub>	H95117
1 <sup>1</sup> / <sub>4</sub>	H95109	1 <sup>15</sup> / <sub>16</sub>	H95118
1 <sup>1</sup> / <sub>2</sub>	H95110	2	H95119
1 <sup>3</sup> / <sub>8</sub>	H95111	2 <sup>3</sup> / <sub>16</sub>	H95120
1 <sup>7</sup> / <sub>16</sub>	H95112	2 <sup>1</sup> / <sub>4</sub>	H95121
1 <sup>1</sup> / <sub>2</sub>	H95113	2 <sup>7</sup> / <sub>16</sub>	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
93-B1	254U, 256U, 284U, 213T, 215T, 254T, 256T	H95046	\$651	80

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	93-B1-EMC	H95218	\$1778	115

(1) With P/B Station and O/L Disconnect Switch.

Discount D-49c

90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)	
Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control	\$ 142.00
Shifting Chain/Ft.	\$ 5.50
Extended Control with 5' Rod	\$ 137.00
Additional Rod Length/Ft.	\$ 7.50
Refer to pages M3-40 thru M3-50 for additional details and other modifications.	



# LEWELLEN Adjustable Center Variable Pulley Drive

## 412/15 VARIABLE PULLEY WITH FLAT FACE PULLEY

CONSTANT TORQUE—3:1 SPEED RANGE

HP RATINGS  
15 HP @ 1740 RPM  
10 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds —rpm		Variable Belt Pitch Length					Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	79.0	85.0	91.0	97.0	103.0	
			Shaft Center Distance—Inches					
16	1185 395	780 260	16.8 22.2	19.8 25.3	22.8 28.4	25.9 31.4	28.9 34.5	16
18	1065 355	690 230		18.1 23.3	21.1 26.5	24.2 29.6	27.2 32.7	18
20	960 320	630 210		16.2 21.3	19.3 24.5	22.4 27.6	25.4 30.8	20
22	870 290	570 190			17.4 22.4	20.5 25.6	23.6 28.8	22
24	810 270	525 175				18.5 23.4	21.7 26.7	24

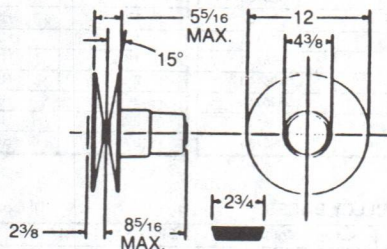
### 412/15 VARIABLE PULLEY

Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1 1/4	LV4121520	623.00	42
1 3/8	LV4121522	623.00	42
1 1/2	LV4121526	623.00	42

Discount—D-49e

Pulley Modification List Additions		
Non Std. Bore		\$180.00
Max. Bore (in)		1 1/16
MINIMUM ORDER		
Quantity of 10 Required.		



PD MAX. = 11.68  
MIN. = 3.74

### BELTS FOR 412/15 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
73.0	212720	H95204	229.50
74.0	412-74.0	H95487	235.00
79.0	212780	H95205	250.00
85.0	212840	H95206	268.50
91.0	212900	H95207	285.50
97.0	212960	H95208	307.50
103.0	2121020	H95209	326.00
109.0	2121080	H95210	346.00
115.0	412-115.0	H95488	361.00
132.0	412-132.0	H95489	414.00

# LEWELLEN Adjustable Center Variable Pulley Drive

## 412/15 VARIABLE PULLEY WITH FLAT FACE PULLEY

### TL FLAT FACE PULLEY

Discount—D49h

Diameter (Inches)	Width Face (Inches)	Type Bushing Required	Rim With Bushing		Rim Only		
			Ordering Number	List Price	Ordering Number	List Price	Approx. Wt.
16	4.25	3020	Specify Rim Number and Ordering Number of Appropriate Bushing	\$234	H95080	\$216	48
18	4.25	3020		261	H95081	243	53
20	4.25	3020		286	H95082	268	69
22	4.25	3020		336	H95083	318	85
24	4.25	3020		410	H95084	392	93

## SIZE 3020 TL BUSHINGS—\$18.50 List Ea.

Approx. Wt. 6#

Discount—D49i

Bore	Stock No.	Bore	Stock No.
15/16	H95105	1 1/8	H95114
1	H95106	1 1/16	H95115
1 1/8	H95107	1 3/4	H95116
1 3/16	H95108	1 7/8	H95117
1 1/4	H95109	1 5/8	H95118
1 5/16	H95110	2	H95119
1 3/8	H95111	2 1/16	H95120
1 7/16	H95112	2 1/4	H95121
1 1/2	H95113	2 1/8	H95122

## MOTOR PULLEY BASES

Discount—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
93-B1	254U, 256U, 284U, 213T, 215T, 254T, 256T	H95046	\$651	80

## MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110 — 125	93-B1-EMC	H95218	\$1778	115

(1) With P/B Station and O/L Disconnect Switch.

Discount D-49c

90 SERIES MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)	
Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control	\$ 142.00
Shifting Chain/Ft.	\$ 5.50
Extended Control with 5' Rod	\$ 137.00
Additional Rod Length/Ft.	\$ 7.50
Refer to pages M3-40 thru M3-50 for additional details and other modifications.	



# LEWELLEN Adjustable Center Variable Pulley Drive

## 414 VARIABLE PULLEY WITH WIDE RANGE COMPANION SHEAVE

CONSTANT TORQUE—3:1 SPEED RANGE

HP RATINGS  
20 HP @ 1740 RPM  
15 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds rpm		Variable Belt Pitch Length					Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	65.3	69.2	73.0	85.0	97.0	
			Shaft Center Distance—Inches					
11.0	2140 715	1415 470	13.2 18.1	15.2 22.1	17.1 24.0	23.1 30.0	29.1 36.1	11.0
12.0	1960 655	1295 430		14.4 21.3	16.3 23.2	22.3 29.3	28.3 35.3	12.0
13.0	1810 605	1195 400			15.6 22.3	21.6 28.4	27.6 34.4	13.0
14.0	1680 560	1110 370			14.8 21.4	20.8 27.5	26.8 33.6	14.0
16.0	1470 490	975 325				19.2 25.7	25.2 31.8	16.0
18.0	1310 435	865 290				17.5 23.8	23.5 30.0	18.0
20.0	1175 390	780 260					21.8 28.2	20.0

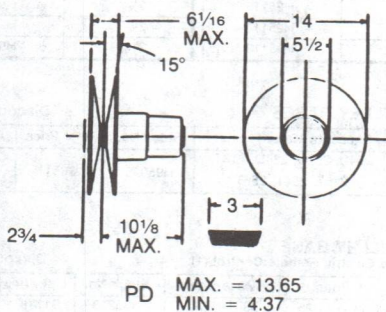
### 414 VARIABLE PULLEY

Discount—D-49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
1 $\frac{1}{8}$	LV4140022	836.00	73
1 $\frac{1}{2}$	LV4140026	836.00	73
1 $\frac{3}{4}$	LV4140030	836.00	73

Discount—D-49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 $\frac{1}{16}$
MINIMUM ORDER	
Quantity of 10 Required.	



### BELTS FOR 414 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
65.3	414-65.3	H95491	285.00
69.2	414-69.2	H95492	299.00
69.9	414-69.9	H95493	299.50
73.0	414-73.0	H95494	316.00
85.0	414-85.0	H95495	370.00
97.0	414-97.0	H95496	424.00
107.0	414-107.0	H95497	450.00

# LEWELLEN Adjustable Center Variable Pulley Drive

## 414 VARIABLE PULLEY WITH WIDE RANGE COMPANION SHEAVE

### WIDE RANGE COMPANION SHEAVES Discount—D49h

Pitch Diameter (In)	QD Bushing Type	Rim Only		
		Ordering Number	List Price	Approx. Weight (lb)
11	E	LC4140110	\$333	54
12	E	LC4140120	358	66
13	E	LC4140130	421	60
14	E	LC4140140	421	56
16	E	LC4140160	518	65
18	E	LC4140180	600	75
20	E	LC4140200	639	73

## MOTOR PULLEY BASES

### Discount—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
93-B1	254U, 256U, 284U, 213T, 215T, 254T, 256T	H95046	\$651	80
412	256U, 284T, 286T, 286U, 324U, 326U	LB4120000	924	170

## MOTOR PULLEY BASES

### With Standard Electric Remote Control (1)

### Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110-125	93-B1-EMC	H95218	\$1778	115
Standard	110-125	412-EMC	LB412EMCO	2237	200

(1) With P/B Station and O/L Disconnect Switch.

### Discount D-49c

MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)	
Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control	\$ 142.00
Shifting Chain/Ft.	\$ 5.50
Extended Control with 5' Rod	\$ 137.00
Additional Rod Length/Ft.	\$ 7.50
Refer to pages M3-40 thru M3-50 for additional details and other modifications.	



# LEWELLEN Adjustable Center Variable Pulley Drive

## 414/25 VARIABLE PULLEY WITH WIDE RANGE COMPANION SHEAVE

CONSTANT TORQUE—3:1 SPEED RANGE

HP RATINGS

25, 30 HP @ 1740 RPM

20 HP @ 1160 RPM

Companion Pulley Diameter Inches	Variable Speeds —rpm		Variable Belt Pitch Length					Companion Pulley Diameter
	with 1800 rpm Motor	with 1200 rpm Motor	65.3	69.2	73.0	85.0	97.0	
			Shaft Center Distance—Inches					
11.0	2140 715	1415 470	13.2 18.1	15.2 22.1	17.1 24.0	23.1 30.0	29.1 36.1	11.0
12.0	1960 655	1295 430		14.4 21.3	16.3 23.2	22.3 29.3	28.3 35.3	12.0
13.0	1810 605	1195 400			15.6 22.3	21.6 28.4	27.6 34.4	13.0
14.0	1680 560	1110 370			14.8 21.4	20.8 27.5	26.8 33.6	14.0
16.0	1470 490	975 325				19.2 25.7	25.2 31.8	16.0
18.0	1310 435	865 290				17.5 23.8	23.5 30.0	18.0
20.0	1175 390	780 260					21.8 28.2	20.0

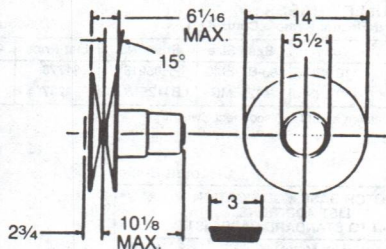
### 414/25 VARIABLE PULLEY

Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1 3/8	LV4142522	886.00	73
1 5/8	LV4142526	886.00	73
1 7/8	LV4142530	886.00	73

Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 15/16
MINIMUM ORDER	
Quantity of 10 Required.	



PD MAX. = 13.65  
MIN. = 4.37

### BELTS FOR 414/25 PULLEY

Discount—D49g

Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
65.3	414-65.3	H95491	285.00
69.2	414-69.2	H95492	299.00
69.9	414-69.9	H95493	299.50
73.0	414-73.0	H95494	316.00
85.0	414-85.0	H95495	370.00
97.0	414-97.0	H95496	424.00
107.0	414-107.0	H95497	450.00

# LEWELLEN Adjustable Center Variable Pulley Drive

## 14/25 VARIABLE PULLEY WITH WIDE RANGE COMPANION SHEAVE

### WIDE RANGE COMPANION SHEAVES Discount—D49h

Pitch Diameter (in)	QD Bushing Type	Rim Only		
		Ordering Number	List Price	Approx. Weight (lb)
11	E	LC4140110	\$333	54
12	E	LC4140120	358	66
13	E	LC4140130	421	60
14	E	LC4140140	421	56
16	E	LC4140160	518	65
18	E	LC4140180	600	75
20	E	LC4140200	639	73

### MOTOR PULLEY BASE

Discount—D-49c

Base Size	Accepts Motor Frame	Stock No.	List Price	Approx. Wt.
412	256U, 284T, 286T, 286U, 324U, 326U	LB4120000	\$924	170

### MOTOR PULLEY BASE

With Standard Electric Remote Control (1)

Discount—D-49c

ERC Type	Volts	Base Size	Stock No.	List Price	Approx. Wt.
Standard	110-125	412-EMC	LB412EMCO	\$2237	200

) With P/B Station and O/L Disconnect Switch

Discount D-49c

MOTOR BASE MODIFICATION LIST ADDITIONS (ADD TO STANDARD BASE LIST)	
Drilled and Tapped for Motor	\$ 44.00
XP ERC with NEMA 1 Pushbutton Station	\$1707.00
XP ERC with XP Pushbutton Station	\$1899.00
Chain Extended Handwheel Control Shifting Chain/Ft.	\$ 142.00 \$ 5.50
Extended Control with 5' Rod Additional Rod Length/Ft.	\$ 137.00 \$ 7.50
Refer to pages M3-40 thru M3-50 for additional details and other modifications.	



## ADJUSTABLE MOTOR BASE SELECTION INFORMATION

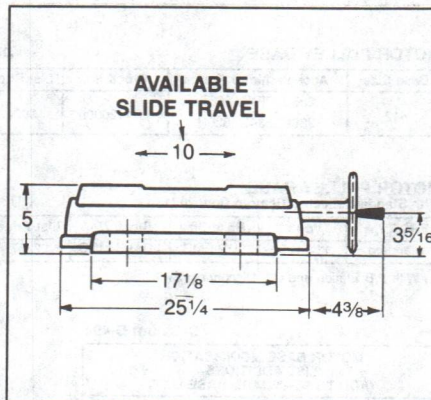
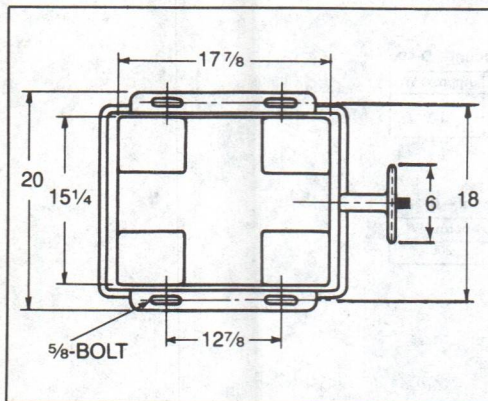
For Adjustable Base sizes 5614, TEL-1, 91-B, 91.5-B, 92-B and 93-B, refer to the REEVES Motor Pulley section, pages M3-2 to M3-63.

ADJUSTABLE BASE WITH HANDWHEEL (1)

DISCOUNT D-49c

Base Size	For Motor Frames	Ordering Number	List Price \$	Discount Symbol	Approximate Weight
412	256T, 284T, 286T, 286U, 324U, 326U	LB4120000	924.00	RE-12b	170

(1) For other options with the Adjustable Base, consult factory.



## COMPANION PULLEY SELECTION INFORMATION

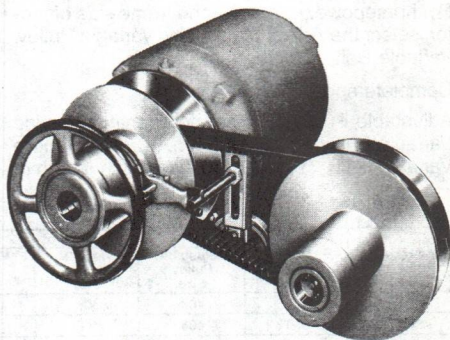
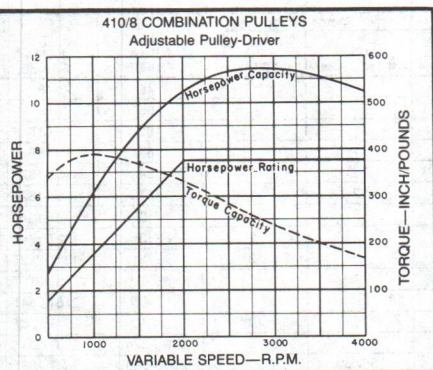
Please refer to the REEVES Motor Pulley section for Flat Face Pulleys. For the current availability of Companion Sheaves, consult the factory.

# Selecting the Combination Pulleys Drive

## COMBINATION PULLEY HORSEPOWER CHARACTERISTICS

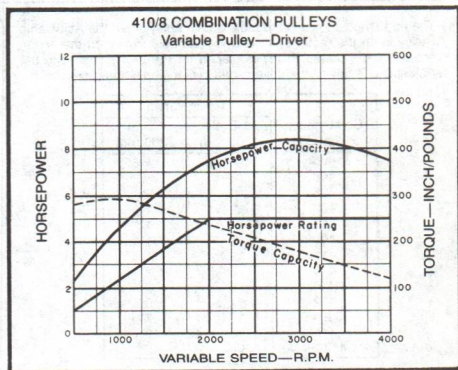
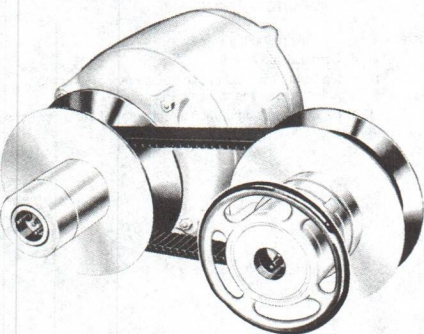
The conventional arrangement of the Combination Pulleys places the Adjustable Pulley at the motor shaft, the Variable Pulley at the driven shaft. Catalog ratings apply to this arrangement.

The 410/8 horsepower-speed graph, for motor mounted Adjustable Pulley, exhibits the characteristics of the Combination Pulleys which the catalog describes.



However, convenience or preference may place the Variable Pulley at the motor shaft, the Adjustable Pulley at the driven shaft.

The 410/8 graph, for motor mounted Variable Pulley, obtains the same horsepower-speed characteristics, but shows lower horsepower values.





## SELECTING THE COMPONENTS OF THE COMBINATION PULLEY DRIVE

For horsepower (1), speed, and frame size of motor, select the Adjustable Pulley, Variable Pulley, Variable Belt, from the table below.

Complete specifications are:

Adjustable Pulley . . . size, bore, shifting device

Variable Pulley . . . size, bore

Variable Belt . . . size, pitch length (2)

Where requirements differ from catalog listings please consult Reliance.

Combination Pulleys Size	Max. Speed Range	Consisting of			Motor Rating		U NEMA FRAME	T NEMA FRAME
		Adjustable Pulley Size	Variable Pulley Size	Variable Belt Size	HP at 1800 rpm	HP at 1200 rpm		
406	10:1	406	406	406	1/2	1/3	48	48
406	10:1	406	406	406	3/4	1/2	56	56
408	9:1	408	408	408	1	3/4	182	143T
408	9:1	408	408	408	1 1/2	1	184	145T
409	8:1	409	409	409	2	1 1/2	184	145T-182T
411	10:1	411	411	411	2	1 1/2	184	145T-182T
409	8:1	409	409	409	3	2	213	182T-184T
411	10:1	411	411	411	3	2	213	182T-184T
410	8:1	410	410	410	5	3	215	184T-213T
410/8	8:1	410	410/8	410	7 1/2	5	254U	213T-215T
412	7:1	412	412	412	10	7 1/2	256U	215T-254T
412/15	7:1	412	412/15	412	15	10	284U	254T-256T
414	7:1	414	414	414	20	15	286U-324U	256T-284T
414/25	7:1	414	414/25	414	25 & 30	20	324U-326U	284T-286T

(1) The hp ratings shown in the table above apply when the Adjustable Pulley is on the motor shaft and the Variable Pulley on the driven shaft. If the Variable Pulley is placed on the motor shaft and the Adjustable Pulley on the driven shaft, use the hp ratings listed below.

Combination Pulley Size	Motor Rating	
	HP at 1800 rpm	HP at 1200 rpm
406	1/2	1/3
408	3/4	1/2
408	1	3/4
409	1 1/2	1
411	1 1/2	1
409	2	1 1/2
411	2	1 1/2
410	3	2
410/8	5	3
412	7 1/2	5
412/15	10	7 1/2
414	15	10
414/25	20	15

(2) the variable belt's pitch length is calculated as following.

$$L = 2C + 1.57(D + d) + \frac{(D - d)^2}{4C}$$

where, L = Variable belt pitch length, in

C = Center distances, in

D = Maximum (minimum) pitch diameter of either the Adjustable or the Variable Pulley

d = Minimum (maximum) pitch diameter of the other Pulley

# LEWELLEN Fixed Center Combination Pulley Drive

## 406 ADJUSTABLE PULLEY AND 406 VARIABLE PULLEY

### HP RATINGS

1/2, 3/4 HP @ 1740 RPM  
1/3, 1/2 HP @ 1160 RPM

### 10:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	0.75	1000	0.4	1320	0.5	660	0.25	2:1
3:1	2400	0.75	800	0.3	1590	0.5	530	0.2	3:1
4:1	2800	0.75	700	0.25	1840	0.5	460	0.2	4:1
5:1	3250	0.75	650	0.25	2150	0.5	430	0.15	5:1
6:1	3600	0.75	600	0.2	2400	0.5	400	0.15	6:1
7:1	3850	0.75	550	0.2	2520	0.5	360	0.15	7:1
8:1	4000	0.75	500	0.2	2640	0.5	330	0.1	8:1
9:1	4500	0.75	500	0.2	2970	0.5	330	0.1	9:1
10:1	5000	0.75	500	0.2	3300	0.5	330	0.1	10:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

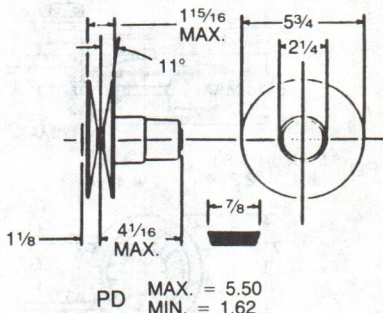
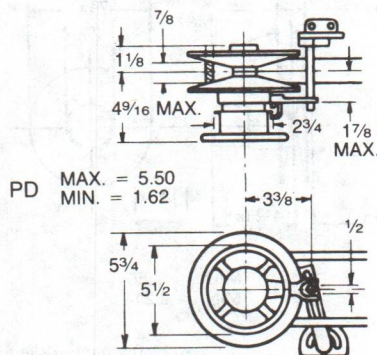
### Discount—D-49e

Pulley Size	Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
406	1/2	LH4060008	460.00	13
406	5/8	LH4060010	460.00	13
406	3/4	LH4060012	460.00	13

### 406 VARIABLE PULLEY

### Discount—D-49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1/2	LV4060008	190.00	6
5/8	LV4060010	190.00	6
3/4	LV4060012	190.00	6



See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.

### Discount—D-49e

Pulley Modification List Additions		
Non Std. Bore		\$180.00
Max. Bore (in)		3/4
MINIMUM ORDER Quantity of 10 Required.		

### VARI-SPEED BELT

### Discount—D-49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
7 11/16	26.9	406-26.9	H95450	29.50
9 9/16	29.9	014300	H95123	30.50
10 9/16	32.9	406-32.9	H95451	31.50
12 1/4	35.9	014360	H95124	32.00
14 1/4	40.0	406-40.0	H95452	34.00
15 1/4	42.0	014420	H95125	35.50
17 9/16	46.2	406-46.2	H95453	36.50
18 9/16	47.9	014480	H95126	37.00
21 1/4	54.0	014540	H95127	41.00
24 3/16	59.9	014600	H95128	44.50
27 3/16	65.9	406-65.9	H95454	48.00
30 3/16	71.9	406-71.9	H95455	52.00
33 3/16	77.9	406-77.9	H95456	56.00



# LEWELLEN Fixed Center Combination Pulley Drive

## 408 ADJUSTABLE PULLEY AND 408 VARIABLE PULLEY

HP RATINGS  
1, 1 1/2 HP @ 1740 RPM  
3/4, 1 HP @ 1160 RPM

9:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	1.5	1000	0.75	1320	1.0	660	0.5	2:1
3:1	2400	1.5	800	0.6	1590	1.0	530	0.4	3:1
4:1	2800	1.5	700	0.55	1840	1.0	460	0.3	4:1
5:1	3250	1.5	650	0.5	2150	1.0	430	0.3	5:1
6:1	3600	1.5	600	0.4	2400	1.0	400	0.3	6:1
7:1	3850	1.5	550	0.4	2520	1.0	360	0.25	7:1
8:1	4000	1.5	500	0.3	2640	1.0	330	0.25	8:1
9:1	4500	1.5	500	0.3	2970	1.0	330	0.25	9:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

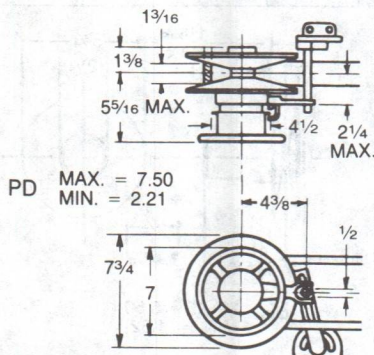
Discount—D49e

Pulley Size	Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
408	3/4	LH4080012	582.00	21
408	7/8	LH4080014	582.00	21
408	1	LH4080016	582.00	21

### 408 VARIABLE PULLEY

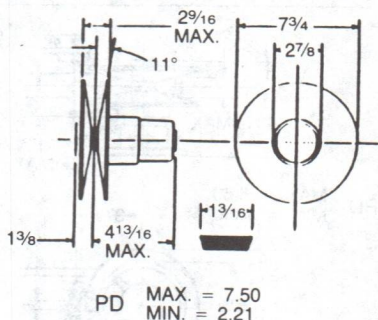
Discount—D49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
3/4	LV4080012	251.00	11
7/8	LV4080014	251.00	11
1	LV4080016	251.00	11



See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.



Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1
MINIMUM ORDER Quantity of 10 Required.	

### VARI-SPEED BELT

Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
9	33.9	408-33.9	H95458	50.00
10 1/4	36.3	103360	H95134	51.00
11 3/8	38.5	103380	H95135	52.50
12 3/8	40.6	408-40.6	H95459	53.00
13	41.7	408-41.7	H95460	53.50
13 3/8	42.6	103420	H95137	54.00
14 3/16	44.3	408-44.3	H95461	54.00
14 3/4	45.4	103450	H95139	54.50
16 1/4	48.4	103480	H95140	55.50
19 1/4	54.4	103540	H95142	58.00
22 1/4	60.4	103600	H95143	61.00
24 3/8	64.6	408-64.6	H95462	62.50
25 3/8	66.6	103660	H95145	64.00
29 1/2	75.0	408-75.0	H95463	65.50
29 1/16	75.3	408-75.3	H95464	66.50

# LEWELLEN Fixed Center Combination Pulley Drive

## 409 ADJUSTABLE PULLEY AND 409 VARIABLE PULLEY

### HP RATINGS

2, 3 HP @ 1740 RPM

1½, 2 HP @ 1160 RPM

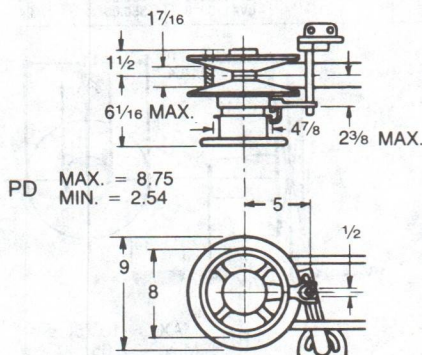
### 8:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	3.0	1000	1.5	1320	2.0	660	1.0	2:1
3:1	2400	3.0	800	1.2	1590	2.0	530	0.8	3:1
4:1	2800	3.0	700	1.0	1840	2.0	460	0.7	4:1
5:1	3250	3.0	650	1.0	2150	2.0	430	0.7	5:1
6:1	3600	3.0	600	0.9	2400	2.0	400	0.6	6:1
7:1	3850	3.0	550	0.8	2520	2.0	360	0.5	7:1
8:1	4000	3.0	500	0.75	2640	2.0	330	0.5	8:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

### Discount—D49e

Pulley Size	Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
409	¾	LH4090014	707.00	26
409	1	LH4090016	707.00	26
409	1½	LH4090018	707.00	26



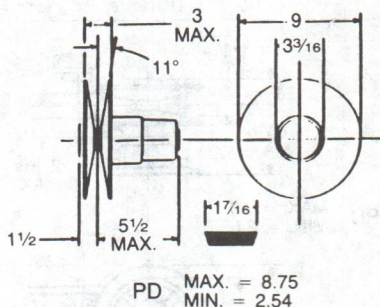
See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.

### 409 VARIABLE PULLEY

### Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
¾	LV4090014	312.00	17
1	LV4090016	312.00	17
1½	LV4090018	312.00	17



### Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1½
MINIMUM ORDER	
Quantity of 10 Required.	

### VARI-SPEED BELT

### Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
10½	39.8	409-39.8	H95466	68.00
11 13/16	42.1	107415	H95153	71.00
13	44.3	107437	H95154	73.50
15 1/16	48.4	107480	H95155	74.00
16 7/8	52.1	107515	H95156	75.00
18 1/16	54.4	107540	H95157	76.50
21 1/16	60.4	107600	H95158	78.00
24 1/8	66.6	107660	H95159	80.00
25 1/8	68.6	409-68.6	H95467	82.00
27 1/8	72.6	107720	H95162	84.50
31 1/8	80.6	107800	H95163	89.00
35 1/8	88.5	409-88.5	H95468	93.00
41 1/8	100.6	409-100.6	H95469	99.00



# LEWELLEN Fixed Center Combination Pulley Drive

## 411 ADJUSTABLE PULLEY AND 411 VARIABLE PULLEY

### HP RATINGS

2, 3 HP @ 1740 RPM

1½, 2 HP @ 1160 RPM

### 10:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	3.0	1000	1.5	1320	2.0	660	1.0	2:1
3:1	2400	3.0	800	1.2	1590	2.0	530	0.8	3:1
4:1	2800	3.0	700	1.0	1840	2.0	460	0.7	4:1
5:1	3250	3.0	650	1.0	2150	2.0	430	0.6	5:1
6:1	3600	3.0	600	0.9	2400	2.0	400	0.6	6:1
7:1	3850	3.0	550	0.8	2520	2.0	360	0.5	7:1
8:1	4000	3.0	500	0.75	2640	2.0	330	0.5	8:1
9:1	4050	3.0	450	0.6	2700	2.0	300	0.4	9:1
10:1	4250	3.0	425	0.6	2800	2.0	280	0.4	10:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

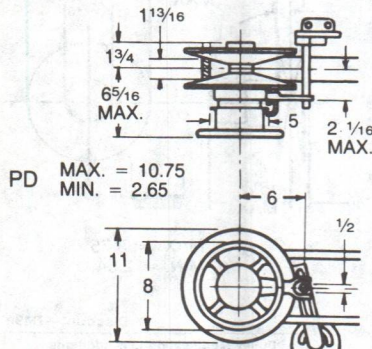
### Discount—D49e

Pulley Size	Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
411	¾	LH4110014	768.00	35
411	1	LH4110016	768.00	35
411	1½	LH4110018	768.00	35

### 411 VARIABLE PULLEY

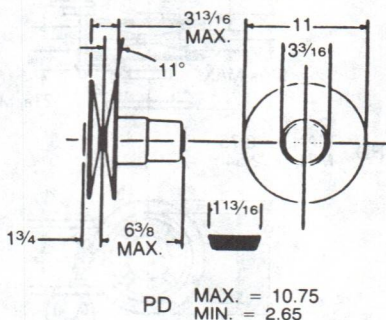
### Discount—D49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
¾	LV4110014	350.00	24
1	LV4110016	350.00	24
1½	LV4110018	350.00	24



See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.



### Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1½
MINIMUM ORDER	
Quantity of 10 Required	

### VARI-SPEED BELT

### Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
12 1/16	47.1	411-47.1	H95477	87.50
13 1/16	48.7	113480	H95170	89.00
15 1/16	52.2	113515	H95171	91.50
16 3/16	54.7	113540	H95172	94.00
17 3/16	57.5	113568	H95173	94.50
18 3/16	58.7	113580	H95174	95.50
19 3/16	60.7	113600	H95175	97.00
21 3/16	64.7	113640	H95178	98.50
23 3/16	68.7	113680	H95180	101.50
25 3/16	72.7	113720	H95182	104.50
27 3/16	77.7	113770	H95183	110.00
31 3/16	85.6	113849	H95185	115.00
34 3/16	90.7	113900	H95187	119.50
37 3/16	96.7	113960	H95478	124.00

# LEWELLEN Fixed Center Combination Pulley Drive

## 410 ADJUSTABLE PULLEY AND 410/8 VARIABLE PULLEY

HP RATINGS  
7½ HP @ 1750 RPM  
5 HP @ 1160 RPM

### 8:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	7.5	1000	3.75	1320	5.0	660	2.5	2:1
3:1	2400	7.5	800	3.0	1590	5.0	530	2.0	3:1
4:1	2800	7.5	700	2.6	1840	5.0	460	1.7	4:1
5:1	3250	7.5	650	2.4	2150	5.0	430	1.6	5:1
6:1	3600	7.5	600	2.25	2400	5.0	400	1.5	6:1
7:1	3850	7.5	550	2.0	2520	5.0	360	1.3	7:1
8:1	4000	7.5	500	1.8	2640	5.0	330	1.2	8:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

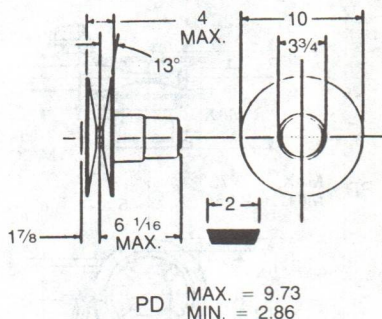
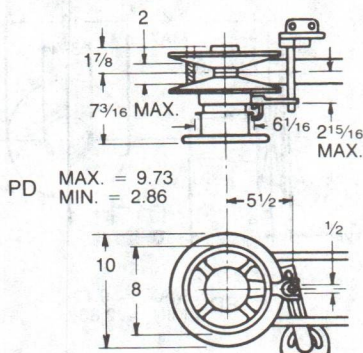
Discount—D49e

Pulley Size	Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
410	1½	LH4100018	836.00	38
410	1¼	LH4100020	836.00	38
410	1⅜	LH4100022	836.00	36

### 410/8 VARIABLE PULLEY

Discount—D49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
1½	LV4100818	433.00	24
1¼	LV4100820	433.00	24
1⅜	LV4100822	433.00	24



See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.

Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 1/16
MINIMUM ORDER Quantity of 10 Required.	

### VARI-SPEED BELT

Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
11½	43.1	410-43.3	H95470	126.50
13	46.5	410-46.5	H95471	130.50
15½	50.5	410-50.5	H95472	134.50
17½	54.5	410-54.5	H95473	138.50
19½	58.5	410-58.5	H95474	142.50
20½	60.5	200600	H95192	148.50
23½	66.5	200660	H95193	150.00
26½	72.5	200720	H95194	158.00
29½	78.5	200780	H95195	167.50
32½	84.5	200840	H95196	179.00
35½	90.5	200900	H95197	191.50
38½	96.5	200960	H95198	204.50
41½	102.5	410-102.5	H95475	216.50
44½	108.5	410-108.5	H95476	228.50



# LEWELLEN Fixed Center Combination Pulley Drive

## 410 ADJUSTABLE PULLEY AND 410 VARIABLE PULLEY

HP RATINGS  
5 HP @ 1740 RPM  
3 HP @ 1160 RPM

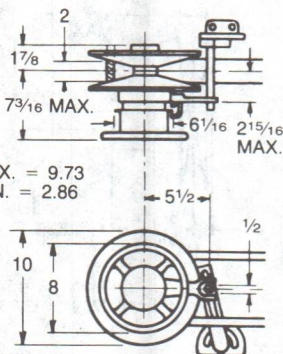
### 8:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	5.0	1000	2.5	1320	3.0	660	1.5	2:1
3:1	2400	5.0	800	2.0	1590	3.0	530	1.2	3:1
4:1	2800	5.0	700	1.75	1840	3.0	460	1.1	4:1
5:1	3250	5.0	650	1.6	2150	3.0	430	1.0	5:1
6:1	3600	5.0	600	1.5	2400	3.0	400	0.9	6:1
7:1	3850	5.0	550	1.4	2520	3.0	360	0.8	7:1
8:1	4000	5.0	500	1.25	2640	3.0	330	0.75	8:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

Discount—D49e

Pulley Size	Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
410	1 1/8	LH4100018	836.00	38
410	1 1/4	LH4100020	836.00	38
410	1 1/2	LH4100022	836.00	38



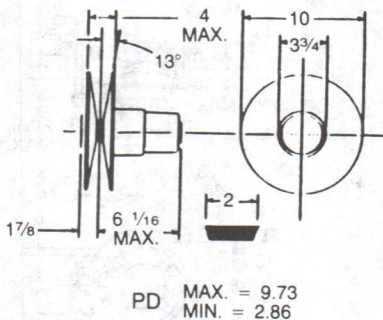
See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.

### 410 VARIABLE PULLEY

Discount—D49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
1 1/8	LV4100018	460.00	24
1 1/4	LV4100020	460.00	24
1 1/2	LV4100022	460.00	24



Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 7/8
MINIMUM ORDER	
Quantity of 10 Required.	

### VARI-SPEED BELT

Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
11 3/8	43.1	410-43.3	H95470	126.50
13	46.5	410-46.5	H95471	130.50
15 1/8	50.5	410-50.5	H95472	134.50
17 1/8	54.5	410-54.5	H95473	138.50
19 3/8	58.5	410-58.5	H95474	142.50
20 7/8	60.5	200600	H95192	148.50
23 1/8	66.5	200660	H95193	150.00
26 1/8	72.5	200720	H95194	158.00
29 1/8	78.5	200780	H95195	167.50
32 1/8	84.5	200840	H95196	179.00
35 1/8	90.5	200900	H95197	191.50
38 1/8	96.5	200960	H95198	204.50
41 1/8	102.5	410-102.5	H95475	216.50
44 1/8	108.6	410-108.5	H95476	228.50

# LEWELLEN Fixed Center Combination Pulley Drive

## 12 ADJUSTABLE PULLEY AND 412/15 VARIABLE PULLEY

1 SPEED RANGE

### HP RATINGS

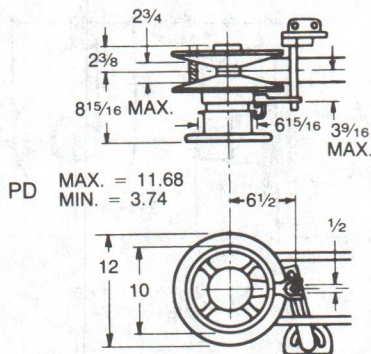
15 HP @ 1750 RPM  
10 HP @ 1160 RPM

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	15.0	1000	7.5	1320	10.0	660	5.0	2:1
3:1	2400	15.0	800	6.0	1590	10.0	530	4.0	3:1
4:1	2800	15.0	700	5.25	1840	10.0	460	3.5	4:1
5:1	3250	15.0	650	4.9	2150	10.0	430	3.2	5:1
6:1	3600	15.0	600	4.5	2400	10.0	400	3.0	6:1
7:1	3850	15.0	550	4.1	2520	10.0	360	2.7	7:1

## ADJUSTABLE PULLEY WITH HANDWHEEL

Discount—D49e

Pulley Size	Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
412	1 1/4	LH4120020	1140.00	62
412	1 3/8	LH4120022	1140.00	62
412	1 1/2	LH4120026	1140.00	62



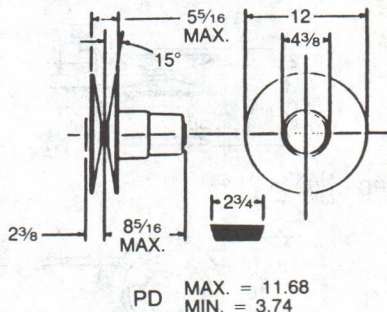
See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.

## 412/15 VARIABLE PULLEY

Discount—D49e

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
1 1/4	LV4121520	593.00	42
1 3/8	LV4121522	593.00	42
1 1/2	LV4121526	593.00	42



Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 11/16
MINIMUM ORDER	
Quantity of 10 Required.	

## VARI-SPEED BELT

Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
14 1/4	54.5	412-54.5	H95479	171.00
15 1/4	55.5	412-55.5	H95480	174.50
16 1/4	58.0	412-58.0	H95481	182.00
18 1/4	61.0	412-61.0	H95482	191.50
19	63.0	412-63.0	H95483	198.00
20 5/8	66.0	412-66.0	H95484	207.00
21	67.0	212660	H95202	211.50
22	69.0	412-69.0	H95485	217.00
22 1/2	70.0	412-70.0	H95486	220.00
24	73.0	212720	H95204	229.50
24 1/2	74.0	412-74.0	H95487	235.00
27	79.0	212780	H95205	250.00
30	85.0	212840	H95206	268.50
33	91.0	212900	H95207	285.50
36	97.0	212960	H95208	307.50
39	103.0	2121020	H95209	326.00
42	109.0	2121080	H95210	346.00
45	115.0	412-115.0	H95488	361.00
53 1/2	132.0	412-132.0	H95489	414.00



# LEWELLEN Fixed Center Combination Pulley Drive

## 412 ADJUSTABLE PULLEY AND 412 VARIABLE PULLEY

### HP RATINGS

10 HP @ 1750 RPM

7½ HP @ 1160 RPM

### 7:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	10.0	1000	5.0	1320	7.5	660	3.75	2:1
3:1	2400	10.0	800	4.0	1590	7.5	530	3.0	3:1
4:1	2800	10.0	700	3.5	1840	7.5	460	2.6	4:1
5:1	3250	10.0	650	3.25	2150	7.5	430	2.4	5:1
6:1	3600	10.0	600	3.0	2400	7.5	400	2.25	6:1
7:1	3850	10.0	550	2.75	2520	7.5	360	2.1	7:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

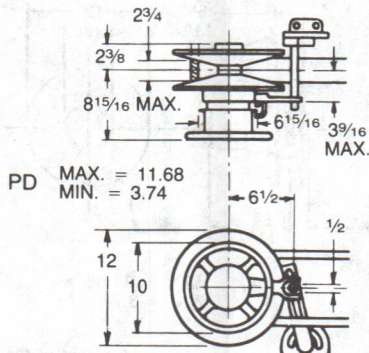
### Discount—D49e

Pulley Size	Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
412	1¼	LH4120020	1140.00	62
412	1½	LH4120022	1140.00	62
412	1¾	LH4120026	1140.00	62

### 412 VARIABLE PULLEY

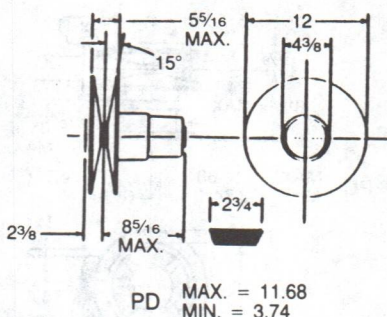
### Discount—D49

Bore Diameter (inches)	Ordering Number	List Price \$	Approximate Weight
1¼	LV4120020	623.00	42
1½	LV4120022	623.00	42
1¾	LV4120026	623.00	42



See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.



### Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 11/16
MINIMUM ORDER	
Quantity of 10 Required.	

### VARI-SPEED BELT

### Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
14 11/16	54.5	412-54.5	H95479	171.00
15 1/8	55.5	412-55.5	H95480	174.50
16 1/2	58.0	412-58.0	H95481	182.00
18 1/16	61.0	412-61.0	H95482	191.50
18 7/8	63.0	412-63.0	H95483	198.00
20 9/16	66.0	412-66.0	H95484	207.00
20 7/8	67.0	212660	H95202	211.50
21 7/8	69.0	412-69.0	H95485	217.00
22 3/8	70.0	412-70.0	H95486	220.00
23 7/8	73.0	212720	H95204	229.50
24 3/8	74.0	412-74.0	H95487	235.00
26 7/8	79.0	212780	H95205	250.00
29 7/8	85.0	212840	H95206	268.50
32 7/8	91.0	212900	H95207	285.50
35 7/8	97.0	212960	H95208	307.50
38 7/8	103.0	2121020	H95209	326.00
41 7/8	109.0	2121080	H95210	346.00
44 7/8	115.0	412-115.0	H95488	361.00
53 3/8	132.0	412-132.0	H95489	414.00

# LEWELLEN Fixed Center Combination Pulley Drive

## 414 ADJUSTABLE PULLEY AND 414 VARIABLE PULLEY

HP RATINGS  
20 HP @ 1750 RPM  
15 HP @ 1160 RPM

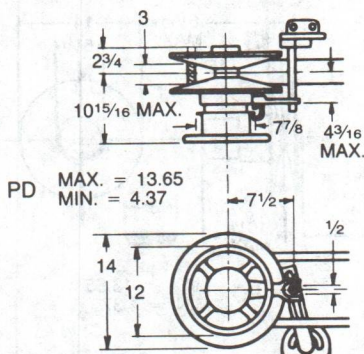
### 7:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	20.0	1000	10.0	1320	15.0	660	7.5	2:1
3:1	2400	20.0	800	8.0	1590	15.0	530	6.0	3:1
4:1	2800	20.0	700	7.0	1840	15.0	460	5.2	4:1
5:1	3250	20.0	650	6.5	2150	15.0	430	4.9	5:1
6:1	3600	20.0	600	6.0	2400	15.0	400	4.5	6:1
7:1	3850	20.0	550	5.5	2520	15.0	360	4.1	7:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

Discount—D49e

Pulley Size	Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
414	1 $\frac{3}{8}$	LH4140022	1415.00	96
414	1 $\frac{1}{2}$	LH4140026	1415.00	96
414	1 $\frac{7}{8}$	LH4140030	1415.00	96



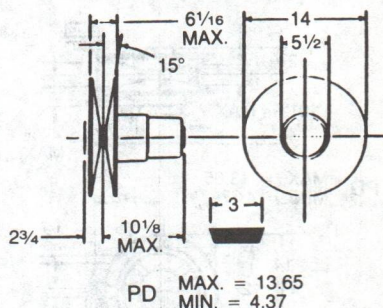
See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.

### 414 VARIABLE PULLEY

Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1 $\frac{3}{8}$	LV4140022	836.00	73
1 $\frac{1}{2}$	LV4140026	836.00	73
1 $\frac{7}{8}$	LV4140030	836.00	73



Discount—D49e

Pulley Modification List Additions	
Non Std. Bore	\$180.00
Max. Bore (in)	1 $\frac{15}{16}$
MINIMUM ORDER	
Quantity of 10 Required.	

### VARI-SPEED BELT

Discount—D49g

Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
16	61.4	414-61.4	H95490	264.00
18	65.3	414-65.3	H95491	285.00
20	69.2	414-69.2	H95492	299.00
20 $\frac{1}{4}$	69.9	414-69.9	H95493	299.50
22	73.0	414-73.0	H95494	316.00
27 $\frac{13}{16}$	85.0	414-85.0	H95495	370.00
33 $\frac{13}{16}$	97.0	414-97.0	H95496	424.00
38 $\frac{3}{16}$	107.0	414-107.0	H95497	450.00



# LEWELLEN Fixed Center Combination Pulley Drive

## 414 ADJUSTABLE PULLEY AND 414/25 VARIABLE PULLEY

### HP RATINGS

25, 30 HP @ 1750 RPM

20 HP @ 1160 RPM

### 7:1 SPEED RANGE

SPEED RANGE	with 1800 rpm Motor				with 1200 rpm Motor				SPEED RANGE
	Fastest rpm	Rating HP	Slowest rpm	Rating HP	Fastest rpm	Rating HP	Slowest rpm	Rating HP	
2:1	2000	30.0	1000	15.0	1320	20.0	660	10.0	2:1
3:1	2400	30.0	800	12.0	1590	20.0	530	8.0	3:1
4:1	2800	30.0	700	10.5	1840	20.0	460	7.0	4:1
5:1	3250	30.0	650	9.7	2150	20.0	430	6.5	5:1
6:1	3600	30.0	600	9.0	2400	20.0	400	6.0	6:1
7:1	3850	30.0	550	8.2	2520	20.0	360	5.5	7:1

### ADJUSTABLE PULLEY WITH HANDWHEEL

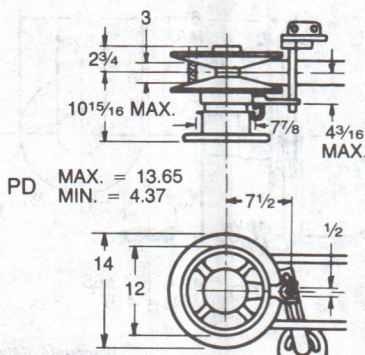
### Discount—D49e

Pulley Size	Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
414	1 1/8	LH4140022	1415.00	96
414	1 1/8	LH4140026	1415.00	96
414	1 7/8	LH4140030	1415.00	96

### 414/25 VARIABLE PULLEY

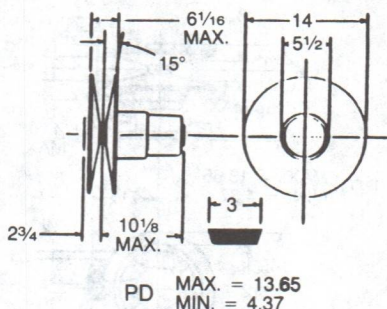
### Discount—D49e

Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
1 1/8	LV4142522	886.00	73
1 1/8	LV4142526	886.00	73
1 7/8	LV4142530	886.00	73



See page M3-101 for guide bracket dimensions.

See page M3-101 for adjustable pulley with sprocket.



### Discount—D49e

Pulley Modification List Additions	
Non Std. Bore Max. Bore (in)	\$180.00 1 15/16
MINIMUM ORDER Quantity of 10 Required.	

### VARI-SPEED BELT

### Discount—D49g

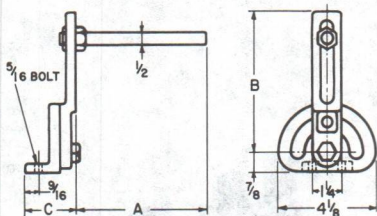
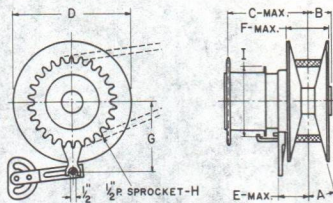
Center Distance (in)	Belt Pitch Length (in)	Belt Number	Ordering Number	List Price \$
16	61.4	414-61.4	H95490	264.00
18	65.3	414-65.3	H95491	285.00
20	69.2	414-69.2	H95492	299.00
20 1/4	69.9	414-69.9	H95493	299.50
22	73.0	414-73.0	H95494	316.00
27 13/16	85.0	414-85.0	H95495	370.00
33 13/16	97.0	414-97.0	H95496	424.00
38 13/16	107.0	414-107.0	H95497	450.00

# LEWELLEN Fixed Center Combination Pulley Drive

## ADJUSTABLE PULLEY WITH SPROCKET (CHAIN SHIFTER AND CHAIN NOT INCLUDED)

Discount Symbol—D-49e

Pulley Size	Bore Diameter (Inches)	Ordering Number	List Price \$	Approximate Weight
406	1/2	LS4060008	460.00	15
406	3/4	LS4060010	460.00	15
406	3/4	LS4060012	460.00	15
408	3/4	LS4080012	582.00	23
408	7/8	LS4080014	582.00	23
408	1	LS4080016	582.00	23
409	7/8	LS4090014	707.00	28
409	1	LS4090016	707.00	28
409	1 1/8	LS4090018	707.00	28
411	7/8	LS4110014	768.00	37
411	1	LS4110016	768.00	37
411	1 1/8	LS4110018	768.00	37
410	1 1/8	LS4100018	836.00	40
410	1 1/4	LS4100020	836.00	40
410	1 3/8	LS4100022	836.00	40
412	1 1/4	LS4120020	1140.00	64
412	1 3/8	LS4120022	1140.00	64
412	1 5/8	LS4120026	1140.00	64
414	1 3/8	LS4140022	1415.00	98
414	1 5/8	LS4140026	1415.00	98
414	1 7/8	LS4140030	1415.00	98

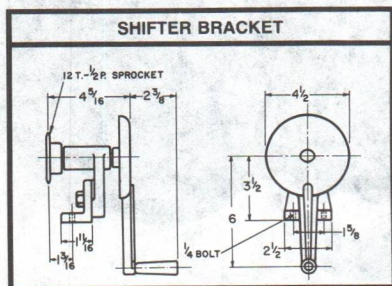


GUIDE BRACKET

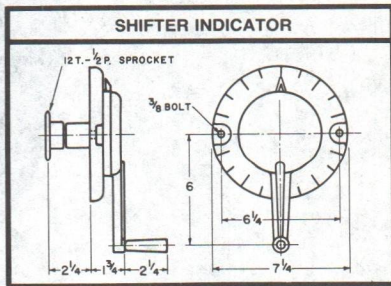
Size	406	408	409	411	410	412	414
A	5 1/2	5 1/2	5 1/2	5 1/2	8 1/4	8 1/4	8 1/4
B	5 13/16	5 13/16	5 13/16	5 13/16	8 1/4	8 1/4	8 1/4
C	2 1/8	2 1/8	2 1/8	2 1/8	2 7/8	2 7/8	2 7/8

Size	406	408	409	411
A	11°	11°	11°	11°
B	1 1/8	1 3/8	1 1/2	1 3/4
C	4 1/4	5	5 3/4	6 5/8
D	5 3/4	7 3/4	9	11
E	1 7/8	2 1/4	2 3/8	2 11/16
F	1 15/16	2 9/16	3	3 3/16
G	3 3/8	4 3/8	5	6
H	24T	36T	36T	36T
I	2 3/4	4 1/2	4 7/8	5

Size	410	412	414
A	13°	15°	15°
B	1 7/8	2 3/8	2 3/4
C	6 7/8	8 5/8	10 5/8
D	10	12	14
E	2 15/16	3 9/16	4 3/16
F	4	5 5/16	6 1/16
G	5 1/2	6 1/2	7 1/2
H	44T	52T	52T
I	6 1/16	6 15/16	7 7/8



SHIFTER BRACKET



SHIFTER INDICATOR

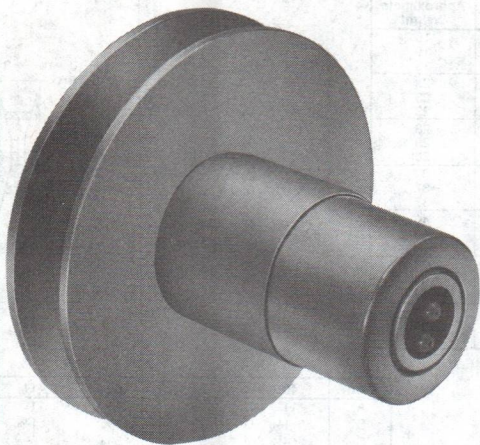
Discount Symbol—D-49e

OPTIONS FOR ADJUSTABLE PULLEY WITH SPROCKET	List Price
SHIFTER BRACKET	\$129.50
SHIFTER INDICATOR	195.00
SHIFTING CHAIN, PER FOOT	5.00

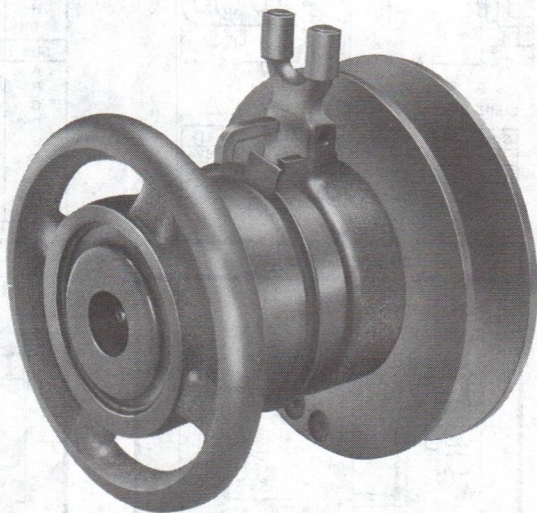


## **LEWELLEN Pulleys**

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**LEWELLEN Variable Pulley**



**LEWELLEN Adjustable Pulley**

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# REEVES® VARI-SPEED® Transmissions

## High Torque, Low Speed Power

No other mechanical drive delivers a wider speed range, with greater operating efficiency.

## Excellent Speed Regulations

You get the speed you need, regulated within 2%, and long term drift accurately held within 0.1%. In comparison, a mechanical chain drive can only be regulated to 5%, regardless of load.

## Handles Overloads and Shock Loading

The REEVES block belt is resilient to absorb overloads and shock loading, instead of passing them on to the other drive components.

## No Gearing To Wear, No Oil To Change

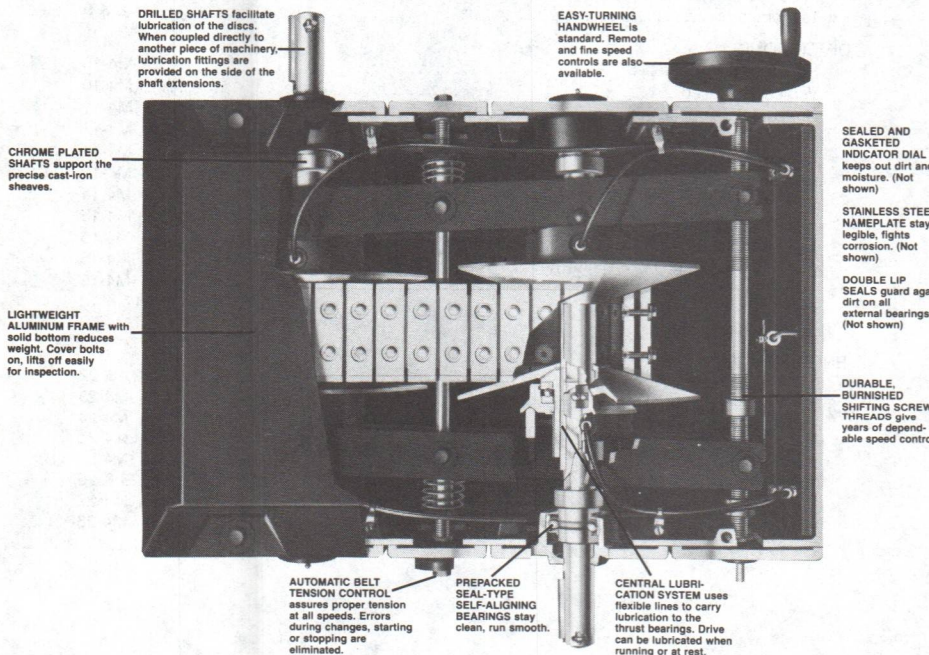
What you *don't* get with the REEVES Transmission also improves its performance and acceptance on all types of industrial applications.

## Output Rated

The REEVES Transmission is rated on actual output shaft horsepower.

## Minimum Maintenance At All Times

The REEVES Transmission is made to work on and on, not to be worked upon.



1. Determine the horsepower and maximum and minimum speed required.
2. Determine if a service factor should be used in choosing a size drive. All ratings in the Selection Tables are based on normal 8 to 10 hour service and smooth load. When unusual conditions prevail, multiply the horsepower required by the service factors listed below and use the resultant horsepower in selecting the proper size transmission.

Frequent Starting and Stopping	1.2 — 1.4
Reversing	1.3 — 1.5
For 24 Hour Service	1.5
Peak or Shock Loads	Refer to Reeves Product Department

## ORDERING INSTRUCTIONS

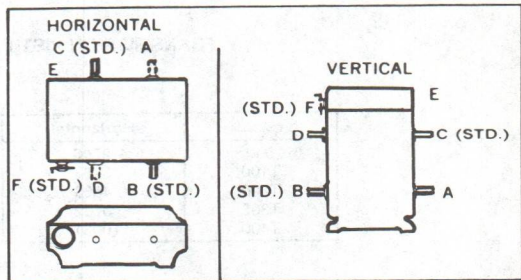
When ordering be sure that you include all the necessary information needed to service your order properly, include:

### Example

1. Size & Horsepower T300 7½ hp
2. Output Speeds .... 1170/293
3. Input Speed ..... 420 rpm
4. Output Shaft
  - Location ..... A, B, C, or D (C Standard)
5. Input Shaft
  - Location ..... A, B, C, or D (B Standard)
6. Assembly ..... Horizontal (or Vertical)
7. Type Mounting .... Floor (Ceiling or Wall Mounting)
8. Shifting Equipment and Location ..... Handwheel at "E" or "F" Position (F Standard) or Type of Electric Remote Control
9. Accessories ..... Motor Base, Countershaft, Tachometer, etc.
10. Special Features ... Extended or Special Output Shaft. Such instructions must accompany order.
11. For Direct Coupling To Customer's Machine ..... When direct coupling shaft, indicate on order — lube fitting will be on the periphery of shaft instead of standard end location. Such instructions must accompany order.

## SHAFT EXTENSIONS SIZES 000 THRU T400

Shaft extensions are keyed to full length.





# Selection Tables

2:1 RANGE				
HP Output	Output Speed (rpm)		Input Speed (rpm)	Size
	Max.	Min.		
Up to 1 1/4	1170 950 780 640 520 420	585 475 390 320 260 210	480	000
1 1/2	1170 950 780 640 520 420	585 475 390 320 260 210	450	T100
2	1170 950 780 640 520	585 475 390 320 260	450	T100
3	1170 950 780 640 520	585 475 390 320 260	450	T200
5	1170 950 780 640 520	585 475 390 320 260	450	T200
7 1/2	1170 950 780 640 520	585 475 390 320 260	420	T300
10	1170 950 780 640 520	585 475 390 320 260	420	T300
15	1170 950 780 640 520	585 475 390 320 260	365	T400
20	1170 950 780 640 520	585 475 390 320 260	365	T400

3:1 RANGE				
HP Output	Output Speed (rpm)		Input Speed (rpm)	Size
	Max.	Min.		
Up to 1 1/4	1170 950 780 640 520	390 317 260 213 173	480	000
1 1/2	1170 950 780 640 520	390 317 260 213 173	450	T100
2	1170 950 780 640 520	390 317 260 213 173	450	T100
3	1170 950 780 640 520	390 317 260 213 173	450	T200
5	1170 950 780 640 520	390 317 260 213 173	450	T200
7 1/2	1170 950 780 640 520	390 317 260 213 173	420	T300
10	1170 950 780 640 520	390 317 260 213 173	420	T300
15	1170 950 780 640 520	390 317 260 213 173	365	T400
20	1170 950 780 640 520	390 317 260 213 173	365	T400

4:1 RANGE				
HP Output	Output Speed (rpm)		Input Speed (rpm)	Size
	Max.	Min.		
Up to 1 1/4	1170 950 780 640	293 238 195 160	480	000
1 1/2	1170 950 780 640	293 238 195 160	450	T100
2	1170 950 780 640	293 238 195 160	450	T100
3	1170 950 780 640	293 238 195 160	450	T200
5	1170 950 780 640	293 238 195 160	450	T200
7 1/2	1170 950 780 640 520	293 238 195 160 130	420	T300
10	1170 950 780 640 520	293 238 195 160 130	420	T300
15	1170 950 780 640 520	293 238 195 160 130	365	T400
20	1170 950 780 640 520	293 238 195 160 130	365	T400

## TRANSMISSION LIST PRICES

DISCOUNT—D-49

Size	Horizontal	Vertical
000	\$ 2706	\$ 2883
T100	3183	3183
T200	4583	4583
T300	6752	6752
T400	10031	10031

5:1 RANGE				
HP Output	Output Speed (rpm)		Input Speed (rpm)	Size
	Max.	Min.		
Up to 1 1/4	1170 950	234 190	480	000
1 1/2	1170 950	234 190	450	T100
2	1170 950	234 190	450	T100
3	1170 950 780	234 190 156	450	T200
5	1170 950 780	234 190 156	450	T200
7 1/2	1170 950 780 640	234 190 156 128	420	T300
10	1170 950 780 640	234 190 156 128	420	T300
15	1170 950 780 640	234 190 156 128	365	T400
20	1170 950 780 640	234 190 156 128	365	T400

6:1 RANGE				
HP Output	Output Speed (rpm)		Input Speed (rpm)	Size
	Max.	Min.		
Up to 1 1/4	1170	195	480	000
1 1/2	1170	195	450	T100
2	1170	195	450	T100
3	1170 950	195 158	450	T200
5	1170 950	195 158	450	T200
7 1/2	1170 950 780	195 158 130	420	T300
10	1170 950 780	195 158 130	420	T300
15	1170 950 780 640	195 158 130 107	365	T400
20	1170 950 780 640	195 158 130 107	365	T400

8:1 RANGE				
HP Output	Output Speed (rpm)		Input Speed (rpm)	Size
	Max.	Min.		
3	1170	146	450	T200
5	1170	146	450	T200
7 1/2	1170	146	420	T300
10	1170	146	420	T300
15	1170 950	146 119	365	T400
20	1170 950	146 119	365	T400

## TRANSMISSION LIST PRICES

DISCOUNT—RE-12e

Size	Horizontal	Vertical
000	\$2104	\$2242
T100	2475	2475
T200	3564	3564
T300	5250	5250
T400	7800	7800



# Modifications

## GENERAL POLICY

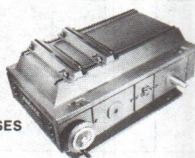
Modifications and corresponding additions are listed for pricing purposes only. The appearance of a particular item is not an indication that the company is committed to furnish Transmissions with such modifications.

## PRICING INSTRUCTIONS

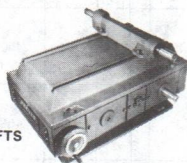
1. Modification prices are list additions and are to be added to the basic list price of the selected Transmission.
2. All list additions are subject to the same multiplier as the selected Transmission.
3. Price additions apply only when ordering modifications with new Transmissions.

## LIST ADDITIONS

MOTOR BASES



COUNTERSHAFTS



COMBINED  
(Horizontal Only)  
MOTOR BASE &  
COUNTERSHAFT



DISCOUNT—D-49j

Size	Horizontal	Vertical (Pivoting Type)
000	\$170	\$283
T100	211	332
T200	314	466
T300	491	664
T400	671	939

Size	Horizontal	Vertical	Countershaft Max. rpm
000	\$283	\$283	—
T100	291	291	7332
T200	424	424	6266
T300	563	563	5132
T400	800	800	4332

Size	Horizontal
000	\$ 376
T100	422
T200	561
T300	846
T400	1163

## BOXING, EXPORT

### DOMESTIC ORDERS BOXED FOR EXPORT

On domestic orders which require crating for export, there will be an addition of **\$20.00** minimum or 5% of net sales billed, whichever is

greater. This price will be subject to the same terms and F.O.B. point as domestic shipments.

## CHROMALIFE

Chromalife is a hard chromium plating applied to the disc faces of the transmission. It is recommended for use in applications that require long term storage, extra guard for corrosive ambient areas, and applications requiring operating at one set speed for long periods of time.

DISCOUNT—D-49j

Size	List Price
000, T100, T200	\$200
T300, T400	225

## ENCLOSURES

*XT Enclosure for Corrosion Resistance*—Suitable for indoor or outdoor areas containing dust and mild acids or alkali solutions. Includes Double Lip Seals at all 4-shafts, and Epoxy Coat on all external aluminum parts. Upper and lower frames are sealed.

*Standard Enclosure*—Suitable for indoor or outdoor applications and where dripping fluids are present.

DISCOUNT—D-49j

Size	List Price	Size	List Price
T100	\$183	T300	\$285
T200	237	T400	363

## ELECTRIC REMOTE CONTROL (ERC)

Reeves Electric Remote Control provides an accurate increase or decrease in output speed by means of one or more pushbutton stations which may be located at any distance from the Transmission.

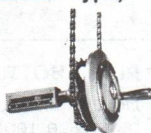
Normal duty type is available on size T100 and T200 only. The heavy duty type is available on sizes T100 thru T400.

### NORMAL DUTY ERC (Size T100 and T200)—

115V or 230V, single-phase, 60 or 50 Hz, instantly reversible, built-in brake, built-in thermal switch for automatic reset, capacitor start, capacitor run, 3 lead, intermittent motor with adjustable limit switches all enclosed in a housing. One pushbutton included.

## EXTENDED HANDWHEEL (Indicator Type)

The extended handwheel is for installations where the operator wishes to note the register speed position at the remote location of the handwheel.



## FEEDIAL HANDWHEELS (1)

DISCOUNT—D-49j

When ordering with a new drive or remote control	
	List
000	\$ 80.00
T100	123.00
T200	130.00
T300	130.00
T400	163.00

Automatically indicates number of handwheel turns.

DISCOUNT—D-49j

### NORMAL DUTY

	List
T100	\$761
T200	936
Extra pushbutton station	69
<b>Transformers: for 115V control from 230/460/575V supply</b>	
T100	\$103
T200	144

### HEAVY DUTY ERC (Sizes T100 thru T400)

Totally enclosed 115V, single-phase, 60 or 50 Hz, 3 lead, capacitor start, capacitor run, instantly reversible motor, adjustable limit switches, and one pushbutton station.

T100 thru T400	\$1469
Extra pushbutton station	72
Transformer	144

For explosion-proof type, refer to your Reliance Distributor or Reliance Sales Office.

### Size 000

For operation on 100—125 or 200—250 volt A-C or D-C includes 200 watt universal type motor, overload, disconnect switch, and one pushbutton station . . . . . \$1173  
Transformer for operation on 230/460 or 575 volts, 50 or 60 Hz . . . . . 157  
Extra pushbutton station . . . . . 66

DISCOUNT—D-49i

	List
When supplied with new Transmissions	\$57.00
Shifting chain, per foot	\$ 4.50
Extended handwheel without Indicator (new unit)	\$42.00

## MICRO-SPEED—"TRIM" CONTROL

DISCOUNT—D-49i

The Micro-Speed control has 20:1 ratio gears for fine "trim" of output speeds. It is used for narrow range, 2:1 control, but can be used over full range. No indicator is included.

SIZE	List
000	\$237
T100 thru T400	\$224



# Modifications

## EXTENSIONS, SPECIAL SHAFT

Unless otherwise specified, Transmissions will be supplied with two standard shaft extensions keyseated full length. Four standard extensions may be supplied at no additional charge if specified on order.

List additions for each special shaft, and may include a special extension on one or both ends of the shaft. (Also, use this table for countershaft extensions.)

Shaft diameters larger than standard—NOT Available.

DISCOUNT—D

	Shaft Qty.	List Prices			
		000 & T100	T200	T300	T400
<b>Special Shaft —</b> Include this addition any time an extension deviates from standard, including longer or shorter than standard, omitting keyway, shorter than std. KW or turned down diameter. *See below.	1	\$177	\$239	\$278	\$333
	2-4	\$114	152	175	210
	5-24	44	59	67	80
	25 & Up	31	36	44	50
<b>NOTE: Long Ext.</b> For each 6" (or fraction thereof) beyond std., add to special shaft addition.		12	13	15	17

\* Threading, Special Keyway, Drilling/Tapering — Add 20% "Special Shaft" addition for each feature required.

## PAINT, SPECIAL

Transmissions are finished with two coats of Reliance high quality enamel. For paint other than standard, make the following list additions:

Paint furnished by Reeves **\$43.50 list, plus 2% of complete Transmission Price.**

Paint furnished by customer **\$43.50 list only.**

**NOTE:** If paint is furnished by customer for two more drives on one order for unit shipment, the basic **\$43.50** charge is added only once for drives involved. These additions apply only to commercial paints that can be applied over the standard primer.

## UNDERCOATING—Sound Absorption

A special coating can be applied to the interior surfaces of the Transmission to reduce the sound level approximately 50%.

DISCOUNT—D-49j

Size	List Price	Size	List Price
000 & T100	\$62	T300	\$82
T200	75	T400	98

## PLATE BOTTOM

Horizontal, Enclosed 000 Transmissions, unless otherwise requested, are supplied without bottom plate. If a bottom plate is specified in the order use indicated addition.

Size	List Price
000	No Charge

## TACHOMETERS (1)

DISCOUNT—D-49j

Reeves A-C	List Price
"O" Ring Coupled Gear Driven	\$500
Weatherproof and dust resistant meter enclosure	610
	165

These prices are for factory mounted on new VST Transmissions.

The tachometer must be gear driven when either the low speed of the variable shaft is below 100 rpm, or the high speed of the shaft is below 750 rpm.

The package includes the indicating meter with standard enclosure, 10 feet of #18, two wire cables, the generator, and mounting of the generator. Indicators are standardly graduated in rpm, but can be graduated in any units specified. Two or more indicators may be connected to the same generator but factory adjustment will be necessary. Up to 300 feet of cable may be used without affecting the accuracy of the instrument. The rugged construction of the instrument assures many years of trouble-free service. The 4 1/2" pivot and jewel type indicator comes complete with internal calibration potentiometer. A pressed steel meter case is included with internal calibration potentiometer. A pressed steel meter case is included for other than flush panel mounting.

(1) These price additions are for pricing new equipment only.

## COUNTERS, DIGITAL READOUT

Transmission Only.

When ordered with new units, the package includes the following:

Digital counter for panel mounting.

10 feet of signal input cable, complete with amphenol connector for connection to magnetic pickup.

Magnetic pickup in an enclosed housing mounted on the transmission.

3 feet of a 115 volt A-C power lead with a grounded connector.

The standard digital readout will be in output rpm, but it can be programmed, at request, to represent any time rate in units, such as feet per minute, or inches per hour, etc.

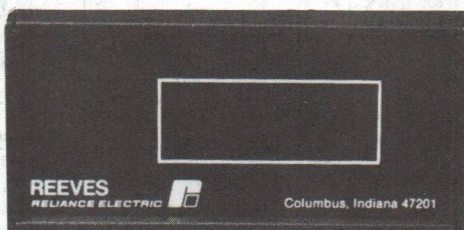
Also available are reverse readings, such as minutes baking time. Specify on order.

The compact design offers extreme accuracy, plus or minus one count, and provides for continuous readout with instantaneous update at the end of each counting period. The reliable 4-digit counter is easily readable and requires no adjustments or calibration by the operator.

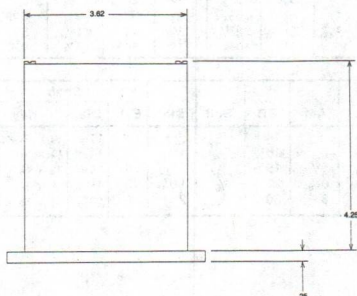
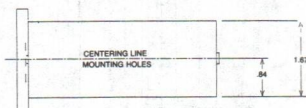
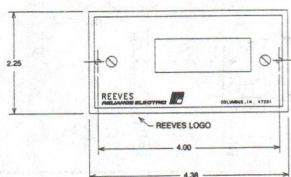
DISCOUNT—D-49J

OPTIONS	List Price Additions
Basic Package	\$575
Add for Additional Input Cable (per foot)	1.55
Additional Meter	405
Add For Explosion-Proof Pickup (1)	385
Add For Explosion-Proof Meter Housing (2)	705
Add For NEMA 4X and 13 Meter Housing	165
Add For Bench Mount Meter	55

- (1) Class I, Group A, B, C, D—Class II, Group E, F, G. Signal input cable not furnished.
- (2) Class I, Group D—Class II, Group E, F, G. Neither signal input or A-C power leads furnished.



DIGITAL COUNTER

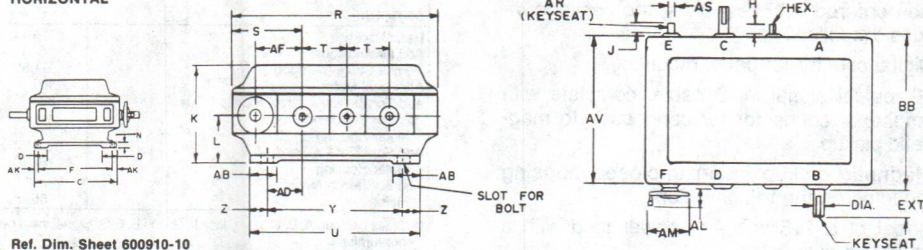




# Dimensions

NO. 000 TO T400

## HORIZONTAL

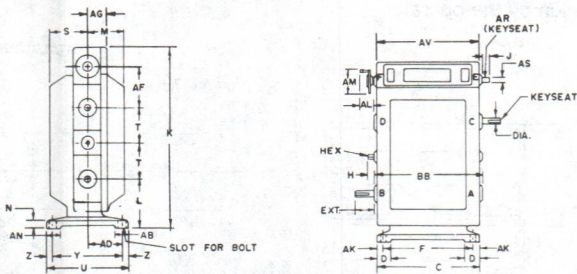


Ref. Dim. Sheet 600910-10

Size	C	D	F	J	H	K	L	N	R	T	U	S	Y	Z
000	12 $\frac{1}{2}$	2	11	1	$\frac{1}{2}$	8 $\frac{1}{2}$	4 $\frac{1}{4}$	$\frac{9}{8}$	18 $\frac{1}{2}$	3 $\frac{3}{4}$	18 $\frac{1}{8}$	6 $\frac{7}{8}$	12 $\frac{7}{8}$	2 $\frac{5}{8}$
T100	14 $\frac{1}{2}$	3 $\frac{1}{4}$	13	$\frac{3}{4}$	$\frac{1}{2}$	11	5 $\frac{5}{8}$	$\frac{3}{4}$	24	5	20 $\frac{3}{8}$	8 $\frac{1}{2}$	16	2 $\frac{3}{8}$
T200	17 $\frac{3}{4}$	3 $\frac{5}{8}$	15 $\frac{1}{2}$	$\frac{13}{16}$	$\frac{5}{8}$	13 $\frac{3}{4}$	7	$\frac{7}{8}$	30	6 $\frac{1}{4}$	25 $\frac{1}{2}$	10 $\frac{1}{16}$	20	2 $\frac{3}{4}$
T300	20 $\frac{7}{8}$	3 $\frac{15}{16}$	18 $\frac{1}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	17 $\frac{1}{2}$	8 $\frac{1}{16}$	$\frac{1}{16}$	38	8 $\frac{1}{4}$	32 $\frac{7}{8}$	12 $\frac{15}{16}$	26 $\frac{1}{8}$	3 $\frac{3}{8}$
T400	26 $\frac{1}{8}$	5 $\frac{1}{2}$	24	1 $\frac{1}{8}$	1	21 $\frac{1}{8}$	10 $\frac{3}{4}$	$\frac{1}{8}$	46 $\frac{1}{2}$	9 $\frac{1}{8}$	39 $\frac{1}{4}$	16 $\frac{1}{4}$	31 $\frac{1}{4}$	4

Size	AB	AF	AK	AL	AM	BB	Bolt	Slot	Shaft			AD	Hex	AR	AS	AV
									Ext.	Dia.	Key					
000	4 $\frac{1}{2}$	4 $\frac{1}{8}$	—	—	—	14	$\frac{3}{8}$	2 $\frac{3}{4}$	3	1 $\frac{1}{8}$	$\frac{1}{4} \times \frac{1}{4} \times 2\frac{1}{8}$	—	—	None	—	—
T100	10 $\frac{1}{16}$	5 $\frac{7}{8}$	$\frac{3}{4}$	3 $\frac{1}{2}$	5	16 $\frac{1}{4}$	$\frac{7}{16}$	2	3	1 $\frac{1}{8}$	$\frac{1}{4} \times \frac{1}{4} \times 2\frac{1}{8}$	4 $\frac{1}{2}$	$\frac{5}{16}$	None	$\frac{3}{8}$	15 $\frac{1}{8}$
T200	12 $\frac{7}{8}$	7 $\frac{1}{8}$	$\frac{19}{16}$	3 $\frac{3}{8}$	5 $\frac{15}{16}$	19 $\frac{1}{8}$	$\frac{1}{2}$	2 $\frac{7}{8}$	4	1 $\frac{7}{8}$	$\frac{3}{8} \times \frac{3}{8} \times 3$	5 $\frac{1}{16}$	$\frac{7}{16}$	$\frac{3}{16} \times \frac{3}{32}$	$\frac{1}{2}$	19 $\frac{1}{8}$
T300	16 $\frac{1}{16}$	9 $\frac{3}{4}$	1	4 $\frac{1}{16}$	6 $\frac{3}{8}$	23 $\frac{1}{2}$	$\frac{7}{16}$	2 $\frac{5}{8}$	5	1 $\frac{11}{16}$	$\frac{3}{8} \times \frac{3}{8} \times 4$	7	$\frac{9}{16}$	$\frac{3}{16} \times \frac{3}{32}$	$\frac{1}{2}$	22 $\frac{3}{8}$
T400	17	11 $\frac{1}{4}$	1 $\frac{7}{16}$	5	8	30	$\frac{1}{2}$	3	6	2 $\frac{1}{8}$	$\frac{1}{2} \times \frac{1}{2} \times 5$	8 $\frac{5}{8}$	$\frac{9}{8}$	$\frac{3}{16} \times \frac{3}{32}$	$\frac{1}{2}$	28 $\frac{1}{8}$

## VERTICAL



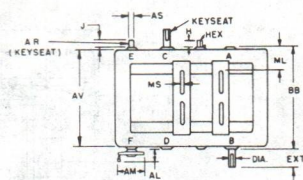
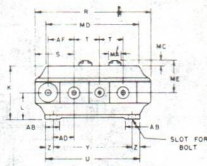
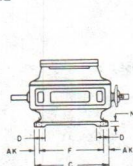
Ref. Dim. Sheet 600910-11

Size	C	D	F	J	H	S	M	N	K	L	T	U	Y	Z
000	12 $\frac{1}{2}$	1 $\frac{3}{4}$	—	1	$\frac{1}{2}$	4 $\frac{1}{8}$	4 $\frac{1}{4}$	1	22 $\frac{1}{8}$	5 $\frac{1}{16}$	3 $\frac{3}{4}$	11 $\frac{3}{8}$	9 $\frac{1}{8}$	1 $\frac{1}{8}$
T100	13	2 $\frac{1}{2}$	11 $\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{2}$	5 $\frac{1}{8}$	5 $\frac{3}{8}$	$\frac{1}{2}$	26 $\frac{1}{4}$	7 $\frac{3}{4}$	5	11 $\frac{1}{2}$	9 $\frac{1}{2}$	1
T200	16 $\frac{1}{2}$	2 $\frac{1}{2}$	14 $\frac{1}{4}$	$\frac{13}{16}$	$\frac{5}{8}$	6 $\frac{3}{4}$	6 $\frac{3}{4}$	$\frac{7}{8}$	32 $\frac{3}{4}$	9 $\frac{9}{16}$	6 $\frac{1}{4}$	14 $\frac{1}{2}$	12 $\frac{1}{4}$	1 $\frac{1}{8}$
T300	19 $\frac{1}{2}$	3	16 $\frac{5}{8}$	$\frac{7}{8}$	$\frac{3}{4}$	8 $\frac{1}{16}$	8 $\frac{1}{16}$	$\frac{1}{2}$	41	11 $\frac{9}{16}$	8 $\frac{1}{4}$	18 $\frac{1}{2}$	15 $\frac{1}{16}$	1 $\frac{1}{32}$
T400	25 $\frac{1}{2}$	4	21 $\frac{1}{4}$	1 $\frac{1}{8}$	1	10 $\frac{3}{8}$	10 $\frac{3}{8}$	$\frac{1}{2}$	50 $\frac{3}{4}$	14 $\frac{1}{4}$	9 $\frac{1}{8}$	22 $\frac{1}{4}$	19 $\frac{1}{4}$	1 $\frac{3}{4}$

Size	AB	AD	AF	AK	AL	AM	BB	Bolt	Slot	Shaft			AN	AR	AS	Hex	AG	AV
										Ext.	Dia.	Key						
000	3	4 $\frac{9}{16}$	4 $\frac{1}{16}$	—	—	—	14	$\frac{1}{2}$	—	3	1 $\frac{1}{8}$	$\frac{1}{4} \times \frac{1}{4} \times 2\frac{1}{8}$	3	None	—	—	—	—
T100	—	4 $\frac{1}{8}$	5 $\frac{7}{8}$	2 $\frac{3}{8}$	3 $\frac{1}{2}$	5	16 $\frac{1}{4}$	$\frac{1}{2}$	1 $\frac{1}{8}$	3	1 $\frac{1}{8}$	$\frac{1}{4} \times \frac{1}{4} \times 2\frac{1}{8}$	—	None	$\frac{3}{8}$	$\frac{1}{16}$	3	15 $\frac{1}{8}$
T200	—	5 $\frac{7}{8}$	7 $\frac{1}{8}$	2 $\frac{7}{8}$	3 $\frac{3}{8}$	5 $\frac{15}{16}$	19 $\frac{1}{8}$	$\frac{9}{16}$	1 $\frac{1}{2}$	4	1 $\frac{7}{8}$	$\frac{3}{8} \times \frac{3}{8} \times 3$	—	$\frac{3}{16} \times \frac{3}{32}$	$\frac{1}{2}$	$\frac{7}{16}$	3 $\frac{3}{8}$	19 $\frac{1}{8}$
T300	—	7 $\frac{1}{32}$	9 $\frac{3}{4}$	3	4 $\frac{1}{16}$	6 $\frac{3}{8}$	23 $\frac{1}{2}$	$\frac{5}{8}$	1 $\frac{11}{16}$	5	1 $\frac{11}{16}$	$\frac{3}{8} \times \frac{3}{8} \times 4$	—	$\frac{3}{16} \times \frac{3}{32}$	$\frac{1}{2}$	$\frac{9}{16}$	4 $\frac{3}{8}$	22 $\frac{3}{8}$
T400	—	8 $\frac{5}{8}$	11 $\frac{1}{4}$	3 $\frac{1}{16}$	5	8	30	$\frac{3}{4}$	2	6	2 $\frac{1}{8}$	$\frac{1}{2} \times \frac{1}{2} \times 5$	—	$\frac{3}{16} \times \frac{3}{32}$	$\frac{1}{2}$	$\frac{9}{8}$	5 $\frac{3}{8}$	28 $\frac{1}{8}$

## HORIZONTAL

## BASE, MOTOR — NO. 000 TO T400

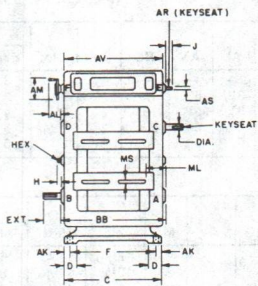
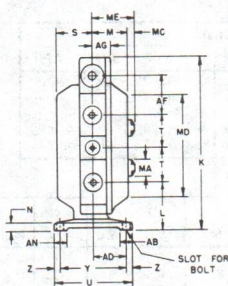


Dimension Sheet 600910-12

Size	C	D	F	H	J	K	L	N	R	S	T	U	Y	Z	AB	AD	AF	AK	AL
000	12 <sup>5</sup> / <sub>8</sub>	2	11	1 <sup>1</sup> / <sub>2</sub>	1	8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	—	4 <sup>1</sup> / <sub>16</sub>	—	—
T100	14 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	13	1 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	24	8 <sup>1</sup> / <sub>2</sub>	5	20 <sup>3</sup> / <sub>8</sub>	16	2 <sup>3</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>8</sub>
T200	17 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	13 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	7	7 <sup>5</sup> / <sub>8</sub>	30	10 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	25 <sup>1</sup> / <sub>2</sub>	20	2 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>
T300	20 <sup>7</sup> / <sub>8</sub>	3 <sup>15</sup> / <sub>16</sub>	18 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	38	12 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	32 <sup>3</sup> / <sub>8</sub>	26 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	16 <sup>3</sup> / <sub>16</sub>	7	9 <sup>1</sup> / <sub>4</sub>	1	4 <sup>1</sup> / <sub>16</sub>
T400	26 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	24	1	1 <sup>1</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	46 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>4</sub>	9 <sup>5</sup> / <sub>8</sub>	39 <sup>3</sup> / <sub>4</sub>	31 <sup>1</sup> / <sub>4</sub>	4	17	8 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>	5

Size	AM	AS	AR	AV	BB	MA	MC	MD	ME	ML	MS	Bolt	Slot	Hex	Shaft		
															Ext.	Dia.	Key
000	—	—	None	—	14	3 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>2</sub>	17	6 <sup>11</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	—	—	3	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>4</sub> x 2 <sup>1</sup> / <sub>8</sub>
T100	5	3 <sup>5</sup> / <sub>8</sub>	None	15 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>16</sub>	2	2 <sup>5</sup> / <sub>16</sub>	3	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub> x 1 <sup>1</sup> / <sub>4</sub> x 2 <sup>1</sup> / <sub>8</sub>
T200	5 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub> x 3 <sup>3</sup> / <sub>32</sub>	19 <sup>1</sup> / <sub>8</sub>	19 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>8</sub>	24	7 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>32</sub>	7 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	4	1 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>8</sub> x 3
T300	6 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub> x 3 <sup>3</sup> / <sub>32</sub>	22 <sup>3</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	31 <sup>3</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>4</sub>	3 <sup>2</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>16</sub>	5	1 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub> x 3 <sup>3</sup> / <sub>8</sub> x 4
T400	8	1 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>16</sub> x 3 <sup>3</sup> / <sub>32</sub>	28 <sup>7</sup> / <sub>8</sub>	30	5	1 <sup>3</sup> / <sub>4</sub>	37 <sup>3</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>16</sub>	1 <sup>19</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>16</sub>	3	5 <sup>5</sup> / <sub>8</sub>	6	2 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub> x 1 <sup>1</sup> / <sub>2</sub> x 5

## VERTICAL



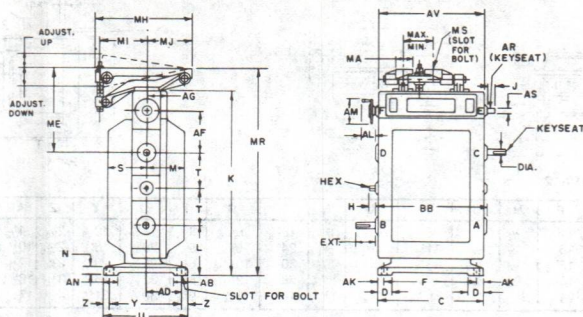
Dimension Sheet 600910-13

Size	C	D	F	H	J	K	L	M	N	S	T	U	Y	Z	AD	AF	AK	AL
T100	13	2½	11¼	½	¾	26¼	7¾	5½	½	5⅝	5	11½	9½	1	4⅞	5⅞	2⅞	3½
T200	16½	2½	14¼	⅝	13/16	32¾	9⅞	6⅞	⅝	6¾	6¼	14½	12¼	1⅞	5⅞	7¾	27/16	3⅝
T300	19½	3	16⅝	¾	7/8	41	11⅞	8⅞	1⅞	8⅞	8¼	18⅝	15⅞	1⅞32	732	9¼	3	4⅞
T400	25½	4	21¼	1	1⅞	50¼	14¾	10⅞	½	10⅞	9⅞	22¾	19¼	1¾	8⅞	11¼	3⅞	5

Size	AM	AR	AG	AS	AV	BB	MA	MC	MD	ME	ML	MS	Bolt	Slot	Hex	Shaft		
																Ext.	Dia.	Key
T100		None	3	3/8	15 1/4	16 1/4	3 9/16	1 7/8	16 1/4	6 1/16	2 3/8	1 5/32	1/2	1 1/8	3/16	3	1 3/16	1/4 x 1/4 x 2 1/8
T200	5 5/16	3/16 x 3/32	3 3/8	1/2	19 1/8	19 3/8	3 3/4	7/8	20 1/16	7 3/4	3 1/32	1 1/32	9/16	1 1/2	7/16	4	1 1/16	3/8 x 3/8 x 3
T300	6 3/8	3/16 x 3/32	4 1/2	1/2	22 3/8	23 1/2	4 1/4	1 1/16	26 1/8	10 1/4	3 25/32	9/16	9/16	1 11/16	9/16	5	1 11/16	3/8 x 3/8 x 4
T400	8	3/16 x 3/32	5 1/2	1/2	28 7/8	30	5	1 3/4	31 1/8	12 5/16	4 7/16	1 19/32	3/4	2	5/8	6	2 3/16	1/2 x 1/2 x 5



## BASE, PIVOTING MOTOR — NO. 000 TO T400



Dimension Sheet 600910-18

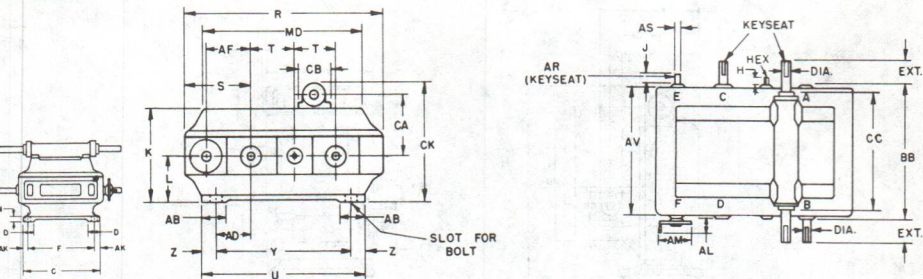
Size	C	D	F	J	H	S	M	N	K	L	T	U	Y	Z	AB	AD
000	12 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	—	1	7 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	1	22 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	3	4 <sup>9</sup> / <sub>16</sub>
T100	13	2 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>4</sub>	3 <sup>4</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	5 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	5	11 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	1	—	4 <sup>3</sup> / <sub>8</sub>
T200	16 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	14 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	5 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>4</sub>	9 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	12 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	—	5 <sup>5</sup> / <sub>8</sub>
T300	19 <sup>1</sup> / <sub>2</sub>	3	16 <sup>3</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	3 <sup>4</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	41	11 <sup>9</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	18 <sup>3</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>32</sub>	—	7 <sup>7</sup> / <sub>32</sub>
T400	25 <sup>1</sup> / <sub>2</sub>	4	21 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	1	10 <sup>3</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	50 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>4</sub>	9 <sup>7</sup> / <sub>8</sub>	22 <sup>3</sup> / <sub>4</sub>	19 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	—	8 <sup>5</sup> / <sub>8</sub>

Size	AF	AK	AL	AM	BB	Bolt	Slot	Shaft			AN	AR
								Ext.	Dia.	Key		
000	4 <sup>1</sup> / <sub>16</sub>	—	—	—	14	1 <sup>1</sup> / <sub>2</sub>	—	3	1 <sup>3</sup> / <sub>16</sub>	1/4 x 1/4 x 2 <sup>1</sup> / <sub>8</sub>	3	None
T100	5 <sup>7</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	5	16 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>16</sub>	3	1 <sup>3</sup> / <sub>16</sub>	1/4 x 1/4 x 2 <sup>1</sup> / <sub>8</sub>	—	None
T200	7 <sup>7</sup> / <sub>16</sub>	2 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	5 <sup>9</sup> / <sub>16</sub>	19 <sup>7</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	4	1 <sup>7</sup> / <sub>16</sub>	3/8 x 3/8 x 3	—	3 <sup>1</sup> / <sub>16</sub> x 3/32
T300	9 <sup>1</sup> / <sub>4</sub>	3	4 <sup>9</sup> / <sub>16</sub>	6 <sup>3</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>2</sub>	5 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	5	1 <sup>1</sup> / <sub>16</sub>	3/8 x 3/8 x 4	—	3 <sup>1</sup> / <sub>16</sub> x 3/32
T400	11 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>16</sub>	5	8	30	3 <sup>4</sup> / <sub>8</sub>	2	6	2 <sup>3</sup> / <sub>16</sub>	1/2 x 1/2 x 5	—	3 <sup>1</sup> / <sub>16</sub> x 3/32

Size	AS	Hex	AG	AV	MA	ME	MH	MI	MJ	MR	MS	Max.	Min.	Adjust	
														Up	Down
000	—	—	—	—	2 <sup>1</sup> / <sub>2</sub>	12 <sup>13</sup> / <sub>16</sub>	14 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	26	9 <sup>1</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>
T100	3 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>	3	15 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	12 <sup>9</sup> / <sub>8</sub>	14 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>16</sub>	30 <sup>1</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>8</sub>
T200	1 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>8</sub>	3	15 <sup>1</sup> / <sub>16</sub>	16 <sup>9</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>32</sub>	7 <sup>19</sup> / <sub>32</sub>	37 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	22	3 <sup>1</sup> / <sub>8</sub>	2	1 <sup>1</sup> / <sub>16</sub>
T300	1 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	22 <sup>3</sup> / <sub>8</sub>	3	18 <sup>1</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>16</sub>	9 <sup>5</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>32</sub>	46 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	21 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>
T400	1 <sup>1</sup> / <sub>2</sub>	5 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	28 <sup>7</sup> / <sub>8</sub>	3	23 <sup>1</sup> / <sub>16</sub>	23	11 <sup>1</sup> / <sub>32</sub>	10 <sup>29</sup> / <sub>32</sub>	58 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	23 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>16</sub>	5	3 <sup>1</sup> / <sub>4</sub>

# COUNTERSHAFT — NO. 000 TO T400

## HORIZONTAL



Dimension Sheet 600910-14

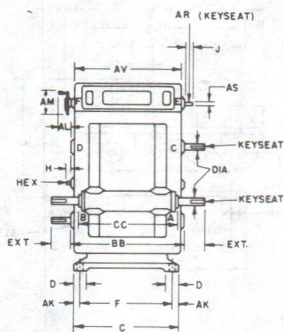
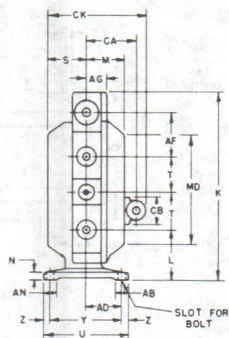
Size	C	D	F	H	J	K	L	N	R	S	T	U	Y	Z	AB	AD	AF	AK	AL
000	12 <sup>5</sup> / <sub>8</sub>	2	11	1/2	1	8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>8</sub>	18 <sup>5</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>4</sub>	4 <sup>9</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>16</sub>	—	—
T100	14 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	13	1/2	3 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	24	8 <sup>1</sup> / <sub>2</sub>	5	20 <sup>3</sup> / <sub>8</sub>	16	2 <sup>3</sup> / <sub>16</sub>	10 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>
T200	17 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	13 <sup>7</sup> / <sub>8</sub>	7	7 <sup>7</sup> / <sub>8</sub>	30	10 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>4</sub>	25 <sup>1</sup> / <sub>2</sub>	20	2 <sup>3</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>16</sub>	7 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>
T300	20 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>2</sub>	8 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	38	12 <sup>1</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>	32 <sup>7</sup> / <sub>8</sub>	26 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>16</sub>	7	9 <sup>1</sup> / <sub>4</sub>	1	4 <sup>9</sup> / <sub>16</sub>
T400	26 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	24	1	1 <sup>1</sup> / <sub>8</sub>	21 <sup>5</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	46 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>4</sub>	9 <sup>5</sup> / <sub>8</sub>	39 <sup>1</sup> / <sub>4</sub>	31 <sup>1</sup> / <sub>4</sub>	4	17	8 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>	5

Size	AM	AS	AR	AV	BB	CA	CB	CC	CK	MD	Bolt	Slot	Shaft			
													Ext.	Dia.	Key	Hex
000	—	—	—	—	14	—	—	—	—	—	3 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	3	1 <sup>3</sup> / <sub>16</sub>	1/4 × 1/4 × 2 <sup>1</sup> / <sub>8</sub>	—
T100	5	3 <sup>3</sup> / <sub>8</sub>	None	15 <sup>5</sup> / <sub>8</sub>	16 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	14 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>16</sub>	2	3	1 <sup>3</sup> / <sub>16</sub>	1/4 × 1/4 × 2 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>16</sub>
T200	5 <sup>9</sup> / <sub>16</sub>	1/2	3 <sup>1</sup> / <sub>16</sub> × 3 <sup>3</sup> / <sub>32</sub>	19 <sup>1</sup> / <sub>8</sub>	19 <sup>7</sup> / <sub>8</sub>	8 <sup>29</sup> / <sub>32</sub>	4 <sup>3</sup> / <sub>4</sub>	19 <sup>1</sup> / <sub>16</sub>	17 <sup>1</sup> / <sub>16</sub>	24	1/2	2 <sup>7</sup> / <sub>16</sub>	4	1 <sup>7</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub> × 3 <sup>5</sup> / <sub>8</sub> × 3	7 <sup>1</sup> / <sub>16</sub>
T300	6 <sup>3</sup> / <sub>8</sub>	1/2	3 <sup>1</sup> / <sub>16</sub> × 3 <sup>3</sup> / <sub>32</sub>	22 <sup>5</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>2</sub>	11 <sup>5</sup> / <sub>32</sub>	5 <sup>1</sup> / <sub>4</sub>	23 <sup>3</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>16</sub>	31 <sup>3</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	5	1 <sup>1</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub> × 3 <sup>5</sup> / <sub>8</sub> × 4	9 <sup>1</sup> / <sub>16</sub>
T400	8	1/2	3 <sup>1</sup> / <sub>16</sub> × 3 <sup>3</sup> / <sub>32</sub>	28 <sup>7</sup> / <sub>8</sub>	30	13 <sup>3</sup> / <sub>16</sub>	6	30 <sup>1</sup> / <sub>8</sub>	26 <sup>5</sup> / <sub>8</sub>	37 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	3	6	2 <sup>3</sup> / <sub>16</sub>	1/2 × 1/2 × 5	5 <sup>5</sup> / <sub>8</sub>



## COUNTERSHAFT — NO. 000 TO T400

### VERTICAL

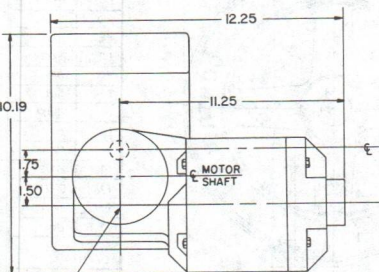
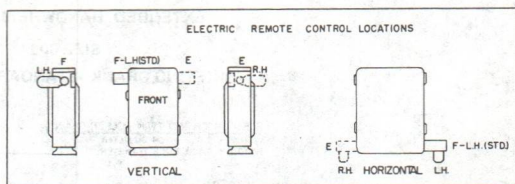


Dimension Sheet 600910-15

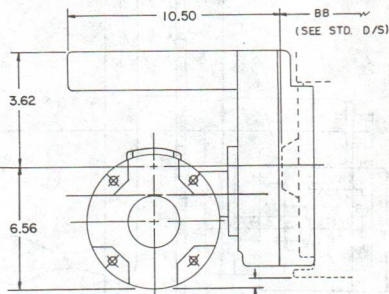
Size	C	D	F	H	J	K	L	M	N	S	T	U	Y	Z	AB	AD	AF	AK	AL
000	12 $\frac{1}{2}$	1 $\frac{3}{4}$	—	—	1	22 $\frac{1}{8}$	5 $\frac{11}{16}$	4 $\frac{1}{8}$	1	4 $\frac{1}{8}$	3 $\frac{3}{4}$	11 $\frac{3}{8}$	9 $\frac{1}{8}$	1 $\frac{1}{8}$	3	4 $\frac{9}{16}$	4 $\frac{1}{16}$	—	—
T100	13	2 $\frac{1}{2}$	11 $\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	26 $\frac{1}{4}$	7 $\frac{3}{4}$	5 $\frac{1}{2}$	$\frac{1}{2}$	5 $\frac{3}{8}$	5	11 $\frac{1}{2}$	9 $\frac{1}{2}$	1	—	4 $\frac{5}{8}$	5 $\frac{7}{8}$	2 $\frac{3}{16}$	3 $\frac{1}{2}$
T200	16 $\frac{1}{2}$	2 $\frac{1}{2}$	14 $\frac{1}{4}$	$\frac{5}{8}$	$\frac{13}{16}$	32 $\frac{3}{4}$	9 $\frac{9}{16}$	6 $\frac{1}{8}$	$\frac{5}{8}$	6 $\frac{1}{4}$	6 $\frac{1}{4}$	14 $\frac{1}{2}$	12 $\frac{1}{4}$	1 $\frac{1}{8}$	—	5 $\frac{5}{8}$	7 $\frac{3}{8}$	2 $\frac{7}{16}$	3 $\frac{3}{8}$
T300	19 $\frac{1}{2}$	3	16 $\frac{3}{8}$	$\frac{3}{4}$	$\frac{1}{2}$	41	8 $\frac{3}{16}$	8 $\frac{3}{16}$	$\frac{1}{2}$	8 $\frac{11}{16}$	8 $\frac{1}{4}$	18 $\frac{3}{8}$	15 $\frac{7}{16}$	1 $\frac{13}{16}$	—	7 $\frac{7}{32}$	9 $\frac{1}{4}$	3	4 $\frac{9}{16}$
T400	25 $\frac{1}{2}$	4	21 $\frac{1}{4}$	1	1 $\frac{1}{8}$	50 $\frac{3}{4}$	14 $\frac{3}{4}$	10 $\frac{3}{8}$	$\frac{1}{2}$	10 $\frac{3}{8}$	9 $\frac{7}{8}$	22 $\frac{3}{4}$	19 $\frac{1}{4}$	1 $\frac{3}{4}$	—	8 $\frac{5}{8}$	11 $\frac{1}{4}$	3 $\frac{13}{16}$	8

Size	AM	AN	AR	AG	AS	AV	BB	CA	CB	CC	CK	MD	Bolt	Slot	Hex	Shaft		
																Ext.	Dia.	Key
000	—	3	—	—	—	—	12 $\frac{1}{2}$	—	—	—	—	—	$\frac{1}{2}$	—	—	3	1 $\frac{3}{16}$	$\frac{1}{4} \times \frac{1}{4} \times 2\frac{1}{8}$
T100	5	—	None	3	$\frac{3}{8}$	15 $\frac{5}{8}$	16 $\frac{1}{4}$	7 $\frac{1}{4}$	4 $\frac{1}{4}$	16 $\frac{1}{4}$	14 $\frac{1}{4}$	16 $\frac{1}{4}$	$\frac{1}{2}$	1 $\frac{1}{16}$	$\frac{5}{16}$	3	1 $\frac{3}{16}$	$\frac{1}{4} \times \frac{1}{4} \times 2\frac{1}{8}$
T200	5 $\frac{9}{16}$	—	$\frac{3}{16} \times \frac{3}{32}$	3 $\frac{3}{8}$	$\frac{1}{2}$	19 $\frac{1}{8}$	19 $\frac{7}{8}$	8 $\frac{29}{32}$	4 $\frac{3}{4}$	19 $\frac{3}{16}$	17 $\frac{9}{16}$	20 $\frac{1}{16}$	$\frac{9}{16}$	1 $\frac{1}{2}$	$\frac{7}{16}$	4	1 $\frac{7}{16}$	$\frac{3}{8} \times \frac{3}{8} \times 3$
T300	6 $\frac{7}{8}$	—	$\frac{3}{16} \times \frac{3}{32}$	4 $\frac{5}{8}$	$\frac{1}{2}$	22 $\frac{3}{8}$	23 $\frac{1}{2}$	11 $\frac{3}{32}$	5 $\frac{1}{4}$	23 $\frac{1}{16}$	21 $\frac{13}{16}$	26 $\frac{3}{8}$	$\frac{5}{8}$	1 $\frac{11}{16}$	$\frac{9}{16}$	5	1 $\frac{11}{16}$	$\frac{3}{8} \times \frac{3}{8} \times 4$
T400	8	—	$\frac{3}{16} \times \frac{3}{32}$	5 $\frac{5}{8}$	$\frac{1}{2}$	28 $\frac{1}{8}$	30	13 $\frac{9}{16}$	6	26 $\frac{1}{4}$	26 $\frac{1}{4}$	31 $\frac{7}{8}$	$\frac{3}{4}$	2	$\frac{5}{8}$	6	2 $\frac{3}{16}$	$\frac{1}{2} \times \frac{1}{2} \times 5$

**ELECTRIC REMOTE CONTROL  
CONTINUOUS DUTY  
T100 TO T400 HORIZONTAL & VERTICAL**

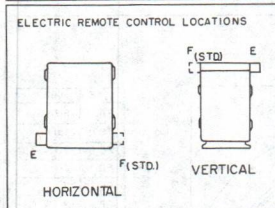


SHIFTING SCREW



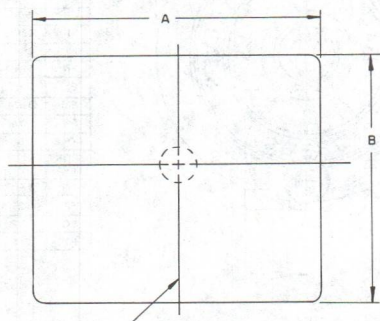
NOTE: MOTOR EXTENDS  
BELOW FLOORLINE  
ON SIZE N° T100  
HORIZONTAL

Dimension Sheet 2-64226

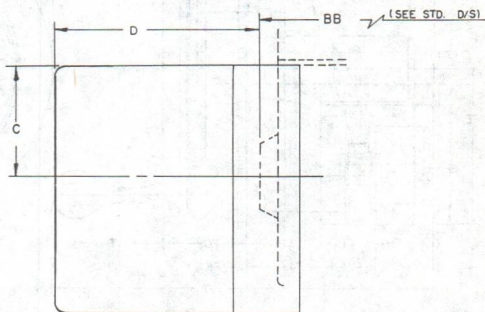


**ELECTRIC REMOTE CONTROL  
INTERMITTENT DUTY  
T100 & T200 HORIZONTAL & VERTICAL**

SIZE	A	B	C	D
T100	5 $\frac{1}{4}$	5 $\frac{9}{16}$	2 $\frac{1}{4}$	5 $\frac{7}{32}$
T200	6 $\frac{5}{8}$	6 $\frac{5}{16}$	2 $\frac{3}{4}$	6 $\frac{11}{32}$



CENTER LINE OF SHIFTING SCREW



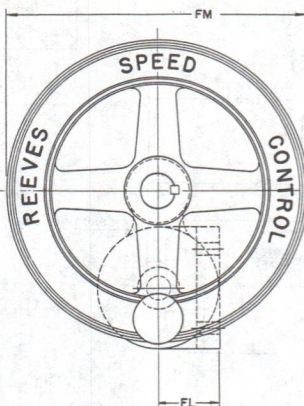
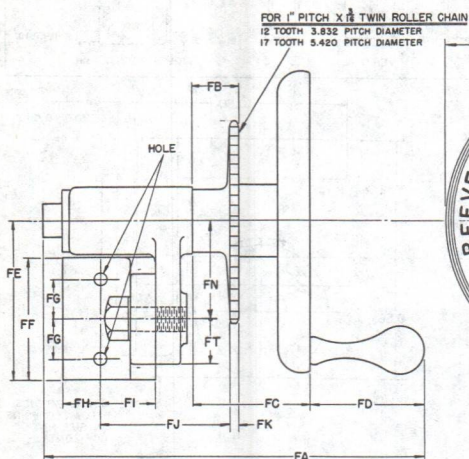
Dimension Sheet 2-63646



## EXTENDED HANDWHEEL CONTROL

SIZE 000

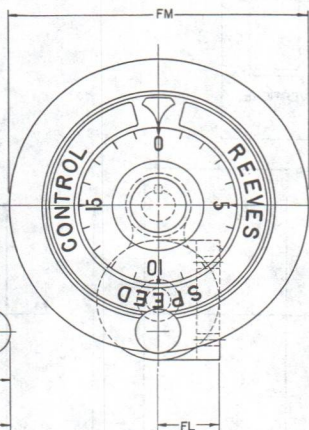
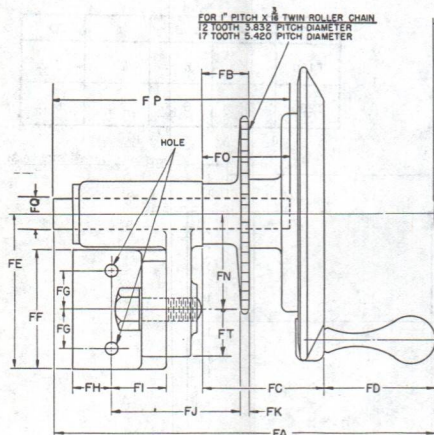
### SHIFTING CRANK—STANDARD HANDWHEEL



SIZE	000
FA	6-3/16
FB	15/16
FC	1-15/16
FD	2-1/4
FE	2
FF	2-1/2
FG	3/4
FH	5/8
FI	29/32
FJ	2
FK	11/64
FL	2-1/2
FM	5-1/16
FN	1-1/4
HOLE	1/4
SPRKT	12
TEETH	3/4

DIMENSION SHEET 2-45031-3

### SHIFTING CRANK—SPEEDIAL HANDWHEEL

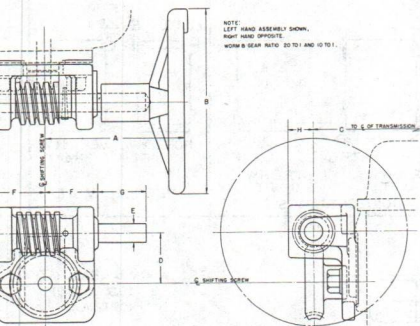


SIZE	000
FA	6-7/16
FB	15/16
FC	2-13/32
FD	2-1/4
FE	2
FF	2-1/2
FG	3/4
FH	5/8
FI	29/32
FJ	2
FK	11/64
FL	2-1/2
FM	5-1/4
FN	1-1/4
HOLE	1/4
SPRKT	12
TEETH	3/4

DIMENSION SHEET 2-45033-4

MICRO-SPEED TRIM CONTROL  
SIZE 000

HORIZONTAL-ENCLOSED

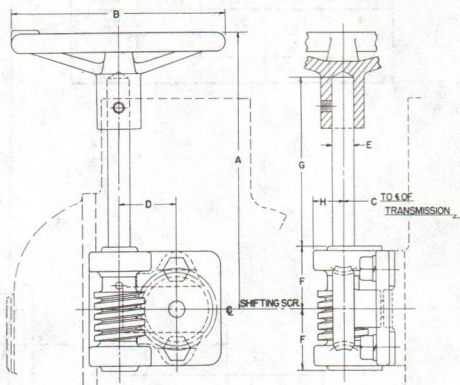


NOTE: Left Hand Assembly Shown,  
Right Hand Opposite  
Worm & Gear Ratio 20 to 1  
and 10 to 1.

SIZE	000
A	3-3/4
B	5
C	7-3/4
D	1-1/3
E	1/2
F	1-7/16
G	1-5/16
H	11/16

DIMENSION SHEET 38992-2

VERTICAL SHAFT FOR VERTICAL UNITS



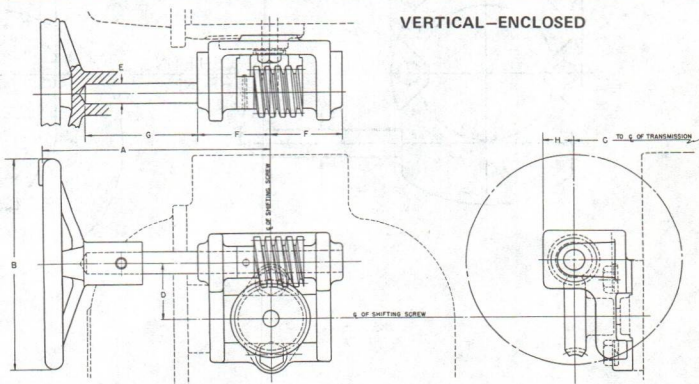
NOTE: Right Hand Assembly Shown  
Left Hand Opposite  
Worm and Gear Ratio 20 to 1  
and 10 to 1

SIZE	000
A	6-3/8
B	5
C	7-25/32
D	1-1/3
E	1/2
F	1-7/16
G	3-15/16
H	11/16

DIMENSION SHEET 2-39193-1

VERTICAL-ENCLOSED

SIZE	000
A	6-1/4
B	5
C	7-7/8
D	1-1/3
E	1/2
F	1-5/8
G	3-5/8
H	11/16

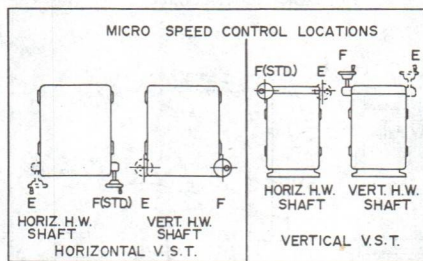


DIMENSION SHEET 2-39080-1

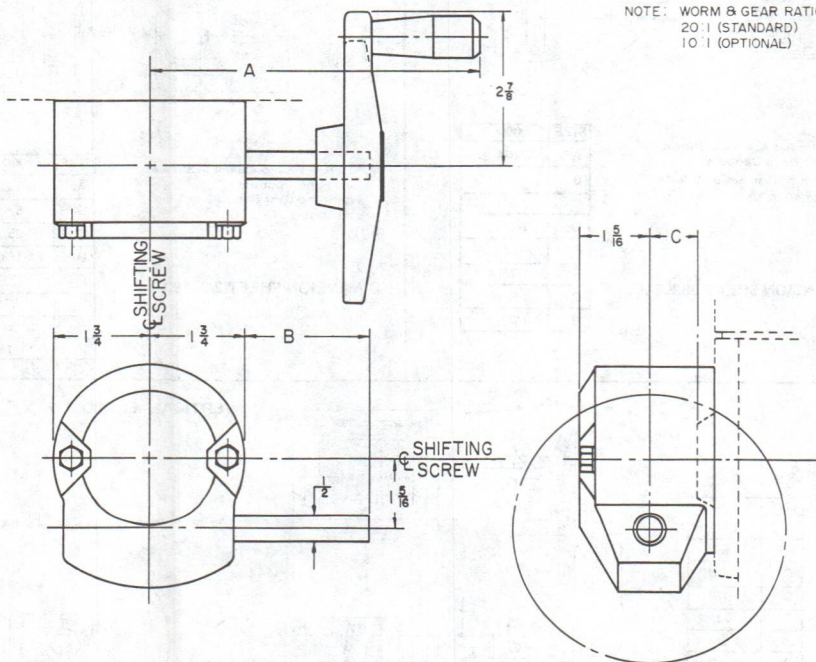


## MICRO SPEED TRIM CONTROL T100 TO T400 HORIZ. & VERT.

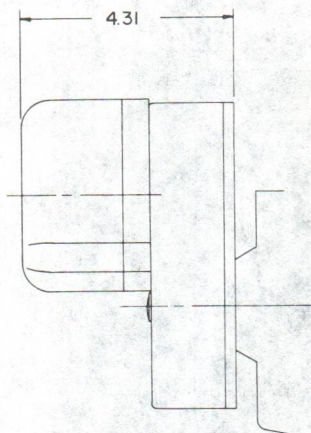
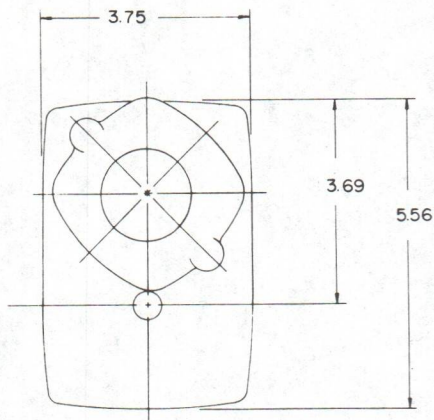
Size	T100	T200	T300	T400
A	5 <sup>7</sup> / <sub>8</sub>	6 <sup>9</sup> / <sub>16</sub>	6 <sup>15</sup> / <sub>16</sub>	8 <sup>1</sup> / <sub>4</sub>
B	2 <sup>9</sup> / <sub>16</sub>	3	3 <sup>3</sup> / <sub>8</sub>	4 <sup>11</sup> / <sub>16</sub>
C	7 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>32</sub>



NOTE: WORM & GEAR RATIO  
20:1 (STANDARD)  
10:1 (OPTIONAL)



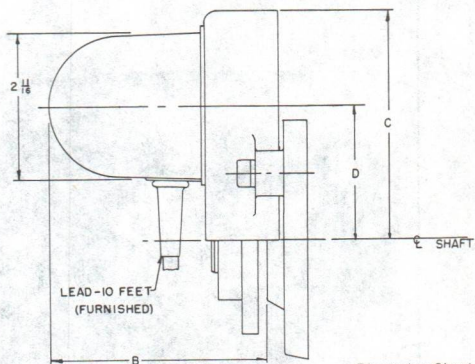
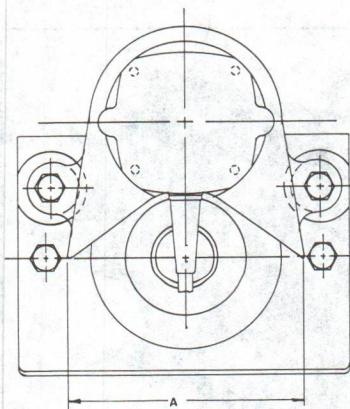
**TACHOMETERS**  
**RELIANCE A-C GENERATOR**  
**"O" RING TYPE**



Dimension Sheet SD-6100-12-B

**A-C GEAR DRIVEN GENERATOR**

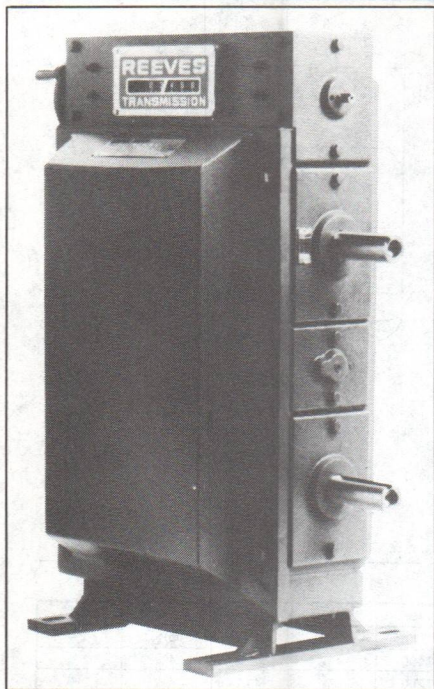
Size	A	B	C	D
000	—	4 1/2	5 15/16	—
T100	4 3/8	4 1/16	4 3/8	2 17/32
T200	3 3/8	4	4 3/8	2 17/32
T300	4 3/8	3 15/16	4 3/8	2 17/32
T400	5 3/8	4 3/8	5 1/8	3 17/64



LEAD-10 FEET  
 (FURNISHED)

Dimension Sheet 2-63761



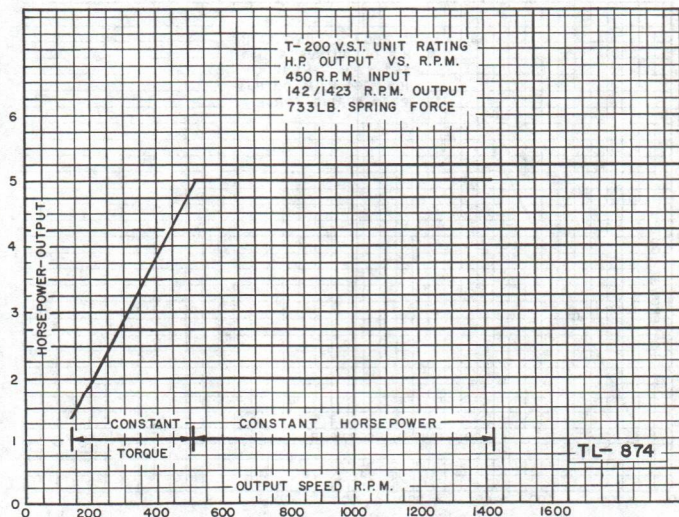
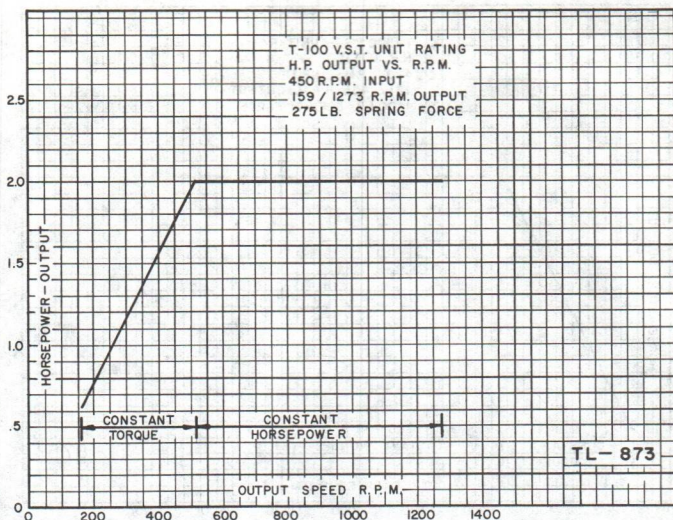


**Vertical Transmission**



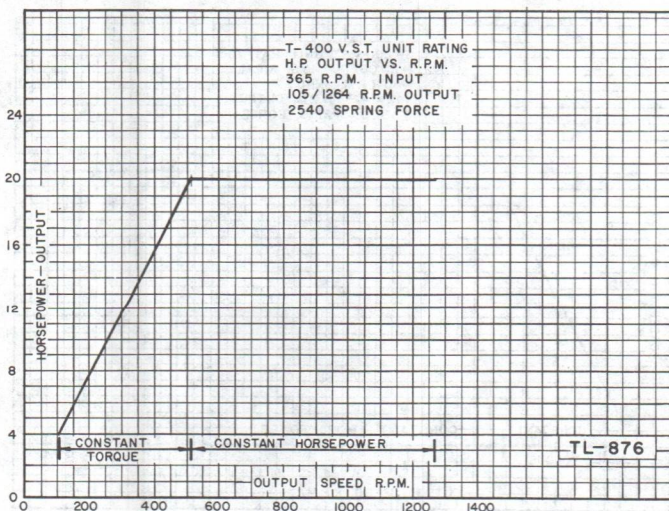
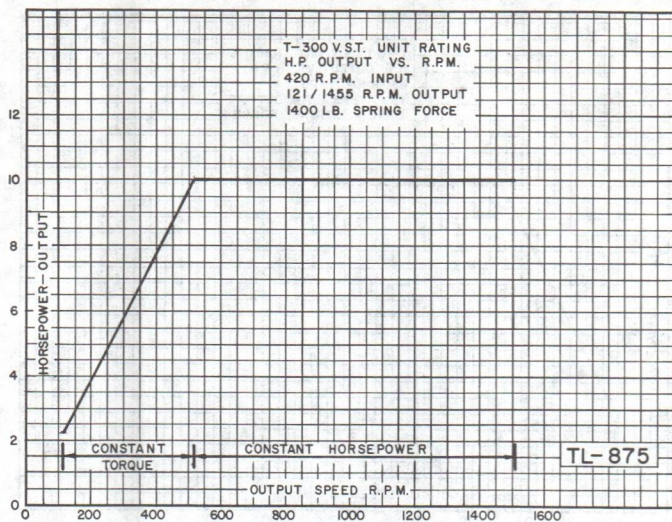
**Horizontal Transmissions with ERC**

# Rating Curves





# Rating Curves



# REEVES CONNECTING DRIVE SELECTION

## CENTER DISTANCES – HORIZONTAL VST

T100

Frames	Max. CL	Min. CL	MF
143T, 145T	13-9/16	10-7/16	3-1/2
182, 184, 184T	13-3/4	11-7/16	4-1/2
203, 204	14-1/16	12	5
213	14-1/8	12-3/16	5-1/4
224, 225	14-1/4	12-7/16	5-1/2

T300

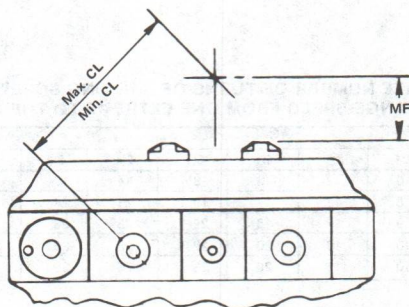
Frames	Max. CL	Min. CL	MF
213T, 215T	22-1/8	16	5-1/4
254U, 256U	22-3/8	17	6-1/4
254T, 256T	22-3/8	17	6-1/4
284U, 284	22-5/8	17-3/4	7
324, 326	23	18-3/4	8

T200

Frames	Max. CL	Min. CL	MF
182T, 184T	16-11/16	12-7/8	4-1/2
213, 215	17	13-5/8	5-1/4
213T, 215	17	13-5/8	5-1/4
225	17-1/16	13-7/8	5-1/2
254, 254U	17-3/8	14-9/16	6-1/4
284	17-3/4	15-3/8	7

T400

Frames	Max. CL	Min. CL	MF
254T, 256T	26-1/8	18-3/4	6-1/4
284U, 286U	26-5/16	19-1/2	7
284T, 286T	26-5/16	19-1/2	7
324U, 326U, 326	26-9/16	20-1/2	8
364, 265	26-7/8	21-1/2	9





## ELECTRICAL REMOTE CONTROL SHIFTING RATES

Size	Ratio	Intermittent Duty	Heavy Duty		
			22/48 Ratio	30/40 Ratio	40/30 Ratio
000	6:1	16.5	Not Available	Not Available	Not Available
	5:1	15.5			
	4:1	15.0			
	3:1	13.5			
	2:1	11.0			
T100	6:1	30.5	61.6	36.7	20.9
	5:1	27.9	56.1	34.2	19.2
	4:1	24.0	48.4	29.6	16.7
	3:1	19.8	39.0	23.5	13.4
	2:1	12.7	23.8	15.3	8.6
T200	8:1	44.7	85.6	53.4	32.8
	6:1	38.9	75.7	47.8	29.2
	5:1	36.3	68.0	43.4	25.8
	4:1	30.4	59.2	37.7	23.2
	3:1	25.5	48.9	30.5	18.5
T300	2:1	17.0	32.3	20.2	12.4
	8:1	Not Available	87.4	58.2	37.6
	6:1		80.7	52.0	34.5
	5:1		71.5	46.3	32.1
	4:1		62.4	40.5	32.6
	3:1		50.8	33.6	26.8
T400	2:1		34.7	22.1	16.1
	8:1	Not Available	95.7	67.8	Not Available
	6:1		83.6	59.2	
	5:1		74.7	52.9	
	4:1		64.9	46.0	
	3:1		52.4	37.1	
	2:1		35.7	25.3	

## APPROXIMATE NUMBER OF TURNS OF SHIFTING SCREW REQUIRED TO CHANGE SPEED FROM ONE EXTREME TO THE OTHER

VST	Ratio							
Size	2:1	3:1	4:1	5:1	6:1	8:1	10:1	12:1
000	10	12	13	13½	14	17½	—	—
T100	8	13	17	19	21	24	—	—
T200	9	15	18	22	23	28	31	—
T300	10	16	20	22	25	29	31	—
T400	10	16	20	23	25	29	31	32

### SHIPPING WEIGHTS (approximate)

Unit Size No.	HORIZONTAL						VERTICAL					
	Standard		Motor Rail		Counter Shaft		Standard		Motor Rail		Counter Shaft	
	Net	Ship	Net	Ship	Net	Ship	Net	Ship	Net	Ship	Net	Ship
000	138	180	162	200	....	....	155	210	185	250	....	....
T100	206	286	217	297	227	307	206	286	218	298	228	308
T200	353	468	369	484	388	503	349	464	365	480	384	497
T300	603	731	630	758	653	781	630	758	656	784	679	807
T400	1040	1215	1077	1252	1123	1298	1080	1255	1116	1291	1162	1337

### V-BELT SIZES FOR HORIZONTAL MODELS

#### HORIZONTAL

Motor Selection	Belt No.	Motor Sheave No.	VST Sheave No.
<b>BELT SIZES FOR T100 VST</b>			
<b>1.5 HP — 1200 rpm</b> NEMA Frame 184 NEMA Frame 182T	2-A42 2-A42	2-A-3.20" P.D. — $\frac{7}{8}$ " bore 2-A-3.20" P.D. — $\frac{7}{8}$ " bore	2-A-8.20" P.D. — $\frac{1}{16}$ " bore 2-A-8.20" P.D. — $\frac{1}{16}$ " bore
<b>1.5 HP — 1800 rpm</b> (1) (2) NEMA Frame 184 NEMA Frame 145T	2-A51 2-3V450	2-A-3.40" P.D. — $\frac{7}{8}$ " bore 2-3V-2.80" O.D. — $\frac{7}{8}$ " bore	2-A-13.20" P.D. — $\frac{1}{16}$ " bore 2-3V-10.60" — O.D. — $\frac{1}{16}$ " bore
<b>2.0 HP — 1200 rpm</b> NEMA Frame 213 NEMA Frame 184T	2-3V450 3-A42	2-3V-3.15" O.D. — $\frac{1}{8}$ " bore 3-A-3.20" P.D. — $\frac{1}{16}$ " bore	2-3V-8.00" O.D. — $\frac{1}{16}$ " bore 3-A-8.20" P.D. — $\frac{1}{16}$ " bore
<b>2.0 HP — 1800 rpm</b> (1) (2) NEMA Frame 184 NEMA Frame 145T	2-A51 2-3V450	2-A-3.20" P.D. — $\frac{7}{8}$ " bore 2-3V-2.80" O.D. — $\frac{7}{8}$ " bore	2-A-8.20" P.D. — $\frac{1}{16}$ " bore 2-3V-10.60" P.D. — $\frac{1}{16}$ " bore
<b>BELT SIZES FOR T200 VST</b>			
<b>3.0 HP — 1200 rpm</b> NEMA Frame 215 NEMA Frame 215 NEMA Frame 213T NEMA Frame 213T	4-A46 4-A48 4-A46 4-A48	4-A-3.20" P.D. — $\frac{1}{8}$ " bore 4-A-3.20" P.D. — $\frac{1}{8}$ " bore 4-A-3.20" P.D. — $\frac{1}{8}$ " bore 4-A-3.20" P.D. — $\frac{1}{8}$ " bore	4-A-8.20" P.D. — $\frac{1}{16}$ " bore 4-A-8.20" P.D. — $\frac{1}{16}$ " bore 4-A-8.20" P.D. — $\frac{1}{16}$ " bore 4-A-8.20" P.D. — $\frac{1}{16}$ " bore
<b>3.0 HP — 1800 rpm</b> (3) NEMA Frame 213 NEMA Frame 182T	3-A55 3-A55	3-A-3.40" P.D. — $\frac{1}{8}$ " bore 3-A-3.40" P.D. — $\frac{1}{8}$ " bore	3-A-13.20" P.D. — $\frac{1}{16}$ " bore 3-A-13.20" P.D. — $\frac{1}{16}$ " bore
<b>5.0 HP — 1200 rpm</b> NEMA Frame 254U NEMA Frame 215T	6-A48 6-A46	6-A-3.20" P.D. — $\frac{1}{8}$ " bore 6-A-3.20" P.D. — $\frac{1}{8}$ " bore	6-A-8.20" P.D. — $\frac{1}{16}$ " bore 6-A-8.20" P.D. — $\frac{1}{16}$ " bore
<b>5.0 HP — 1800 rpm</b> (4) NEMA Frame 215 NEMA Frame 184T	4-A55 4-A55	4-A-3.40" P.D. — $\frac{1}{8}$ " bore 4-A-3.40" P.D. — $\frac{1}{8}$ " bore	4-A-13.20" P.D. — $\frac{1}{16}$ " bore 4-A-13.20" P.D. — $\frac{1}{16}$ " bore

(1) Motor Frame 182 — 184. Raise VST By  $\frac{1}{16}$ ".

(2) Motor Frame 143T — 145T. Raise VST By  $\frac{1}{16}$ ".

(3) Motor Frame 213 — 182T. Raise VST By  $\frac{1}{32}$ ".

(4) Motor Frame 215 — 184T. Raise VST By  $\frac{1}{32}$ ".



## V-BELT SIZES FOR HORIZONTAL MODELS

Motor Selection	Belt No.	Motor Sheave No.	VST Sheave No.
<b>BELT SIZES FOR T300 VST</b>			
<b>7.5 HP — 1200 rpm</b> NEMA Frame 256U NEMA Frame 254T	3-B71 3-B71	3-B-5.60" P.D. — 1 $\frac{1}{8}$ " bore 3-B-5.60" P.D. — 1 $\frac{1}{8}$ " bore	3-B-15.40" P.D. — 1 $\frac{1}{16}$ " bore 3-B-15.40" P.D. — 1 $\frac{1}{16}$ " bore
<b>7.5 HP — 1800 rpm</b> NEMA Frame 254U NEMA Frame 213T	6-B71 6-B68	6-B-3.80" P.D. — 1 $\frac{1}{8}$ " bore 6-B-3.80" P.D. — 1 $\frac{1}{8}$ " bore	6-B-16.00" P.D. — 1 $\frac{1}{16}$ " bore 6-B-16.00" P.D. — 1 $\frac{1}{16}$ " bore
<b>10.0 HP — 1200 rpm</b> NEMA Frame 284U NEMA Frame 256T	3-B71 3-B71	3-B-5.60" P.D. — 1 $\frac{1}{8}$ " bore 3-B-5.60" P.D. — 1 $\frac{1}{8}$ " bore	3-B-15.40" P.D. — 1 $\frac{1}{16}$ " bore 3-B-15.40" P.D. — 1 $\frac{1}{16}$ " bore
<b>10.0 HP — 1800 rpm</b> <sup>(5)</sup> NEMA Frame 256U NEMA Frame 215T	5-B75 5-B75	5-B-4.40" P.D. — 1 $\frac{1}{8}$ " bore	5-B-18.40" P.D. — 1 $\frac{1}{16}$ " bore 5-B-18.40" P.D. — 1 $\frac{1}{16}$ " bore
<b>BELT SIZES FOR T400 VST</b>			
<b>15.0 HP — 1200 rpm</b> NEMA Frame 324U NEMA Frame 324U NEMA Frame 324U NEMA Frame 284T NEMA Frame 284T NEMA Frame 284T NEMA Frame 284T	5-B83 5-B85 4-3V900 5-B81 5-B83 5-B85 4-3V900	5-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 5-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 4-3V-6.00" O.D. — 1 $\frac{1}{8}$ " bore 5-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 5-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 5-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 4-3V-6.00" O.D. — 1 $\frac{1}{8}$ " bore	5-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 5-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 4-3V-19.00" O.D. 2 $\frac{3}{16}$ " bore 5-3V-18.40" P.D. — 2 $\frac{3}{16}$ " bore 5-3V-18.40" P.D. — 2 $\frac{3}{16}$ " bore 5-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 4-3V-19.00" O.D. — 2 $\frac{3}{16}$ " bore
<b>15.0 HP — 1800 rpm</b> <sup>(6) (7)</sup> NEMA Frame 284U NEMA Frame 284U NEMA Frame 254T NEMA Frame 254T	5-B97 4-3V1000 5-B97 4-3V1000	5-B-5.20" P.D. — 1 $\frac{1}{8}$ " bore 4-3V-5.30" O.D. — 1 $\frac{1}{8}$ " bore 5-B-5.20" P.D. — 1 $\frac{1}{8}$ " bore 4-3V-5.30" O.D. — 1 $\frac{1}{8}$ " bore	5-B-25.00" P.D. — 2 $\frac{3}{16}$ " bore 4-3V-25.00" O.D. — 2 $\frac{3}{16}$ " bore 5-B-25.00" P.D. — 2 $\frac{3}{16}$ " bore 4-3V-25.00" O.D. 2 $\frac{3}{16}$ " bore
<b>20 HP — 1200 rpm</b> NEMA Frame 326U NEMA Frame 326U NEMA Frame 326U NEMA Frame 286T NEMA Frame 286T NEMA Frame 286T NEMA Frame 286T	7-B83 7-B85 6-3V900 7-B81 7-B83 7-B85 6-3V900	7-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 7-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 6-3V-6.00" O.D. — 1 $\frac{1}{8}$ " bore 7-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 7-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 7-B-5.80" P.D. — 1 $\frac{1}{8}$ " bore 6-3V-6.00" O.D. — 1 $\frac{1}{8}$ " bore	7-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 7-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 6-3V-19.00" O.D. — 2 $\frac{3}{16}$ " bore 7-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 7-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 7-B-18.40" P.D. — 2 $\frac{3}{16}$ " bore 6-3V-19.00" O.D. — 2 $\frac{3}{16}$ " bore
<b>20.0 HP — 1800 rpm</b> NEMA Frame 286U NEMA Frame 286U NEMA Frame 256T NEMA Frame 256T	6-B97 5-3V1000 6-B97 5-3V1000	6-B-5.20" P.D. — 1 $\frac{1}{8}$ " bore 5-3V-5.30" O.D. — 1 $\frac{1}{8}$ " bore 6-B-5.20" P.D. — 1 $\frac{1}{8}$ " bore 5-3V-5.30" O.D. — 1 $\frac{1}{8}$ " bore	6-B-25.00" P.D. — 2 $\frac{3}{16}$ " bore 5-3V-25.00" O.D. — 2 $\frac{3}{16}$ " bore 6-B-25.00" P.D. — 2 $\frac{3}{16}$ " bore 5-3V-25.00" O.D. — 2 $\frac{3}{16}$ " bore

(5) Motor Frame 256U — 215T: Raise VST By 1 $\frac{1}{16}$ "

(6) Motor Frame 284U — 254T (B Belt): Raise VST By 2 $\frac{1}{16}$ "

(7) Motor Frame 284U — 254T (3V Belt): Raise VST By 2 $\frac{1}{16}$ "

# V-BELT SIZES FOR VERTICAL PIVOT MOTOR MOUNT MODELS

Motor Selection	Belt No.	Motor Sheave No.	VST Sheave No.
<b>BELT SIZES FOR T-100</b>			
<b>1.5 HP – 1200 RPM</b> NEMA Frame 184 NEMA Frame 182-T	2-A-51 2-1-51	2-A-3.2 P.D. – 1-1/8 Bore 2-A-3.2 P.D. – 7/8 Bore	2-A-8.2 P.D. – 1-3/16 Bore 2-A-8.2 P.D. – 1-3/16 Bore
<b>1.5 HP – 1800 RPM</b> NEMA Frame 184 NEMA Frame 145-T	2-A-60 2-A-60	2-A-3.4 P.D. – 7/8 Bore 2-A-3.4 P.D. – 7/8 Bore	2-A-13.2 P.D. – 1-3/16 Bore 2-A-13.2 P.D. – 1-3/16 Bore
<b>2.0 HP – 1200 RPM</b> NEMA Frame 213 NEMA Frame 184-T	3-A-51 3-A-51	3-A-3.2 P.D. – 1-1/8 Bore 3-A-3.2 P.D. – 1-1/8 Bore	3-A-8.2 P.D. – 1-3/16 Bore 3-A-8.2 P.D. – 1-3/16 Bore
<b>3.0 HP – 1800 RPM</b> NEMA Frame 182-T	3-A-55	3-A-3.2 P.D.	3-A-12.0 P.D.
<b>2.0 HP – 1800 RPM</b> NEMA Frame 184 NEMA Frame 145-T	2-A-60 2-A-60	2-A-3.4 P.D. – 7/8 Bore 2-A-3.4 P.D. – 7/8 Bore	2-A-13.2 P.D. – 1-3/16 Bore 2-A-13.2 P.D. – 1-3/16 Bore
<b>BELT SIZES FOR T-200</b>			
<b>3.0 HP – 1200 RPM</b> NEMA Frame 215 NEMA Frame 213-T	2-B-68 2-B-68	2-B-4.8 P.D. – 1-1/8 Bore 2-B-4.8 P.D. – 1-3/8 Bore	2-B-12.4 P.D. – 1-7/16 Bore 2-B-12.4 P.D. – 1-7/16 Bore
<b>3.0 HP – 1800 RPM</b> NEMA Frame 213 NEMA Frame 182-T	3-A-68 3-A-66	3-A-3.4 P.D. – 1-1/8 Bore 3-A-3.4 P.D. – 1-1/8 Bore	3-A-13.2 P.D. – 1-7/16 Bore 3-A-13.2 P.D. – 1-7/16 Bore
<b>5.0 HP – 1200 RPM</b> NEMA Frame 254-U NEMA Frame 215-T	3-B-68 3-B-68	3-B-4.8 P.D. – 1-3/8 Bore 3-B-4.8 P.D. – 1-3/8 Bore	3-B-12.4 P.D. – 1-7/16 Bore 3-B-12.4 P.D. – 1-7/16 Bore
<b>5.0 HP – 1800 RPM</b> NEMA Frame 215 NEMA Frame 184-T	3-B-71 3-B-71	3-B-4.0 P.D. – 1-1/8 Bore 3-B-4.0 P.D. – 1-1/8 Bore	3-B-15.4 P.D. – 1-7/16 Bore 3-B-15.4 P.D. – 1-7/16 Bore
<b>BELT SIZES FOR T-300</b>			
<b>7.5 HP – 1200 RPM</b> NEMA Frame 256-U NEMA Frame 254-T	4-B-75 4-B-75	4-B-5.0 P.D. – 1-3/8 Bore 4-B-5.0 P.D. – 1-5/8 Bore	4-B-13.6 P.D. – 1-11/16 Bore 4-B-13.6 P.D. – 1-11/16 Bore
<b>7.5 HP – 1800 RPM</b> NEMA Frame 254-U NEMA Frame 213-T	4-B-63 4-B-81	4-B-4.4 P.D. – 1-3/8 Bore 4-B-4.4 P.D. – 1-3/8 Bore	4-B-18.4 P.D. – 1-11/16 Bore 4-B-18.4 P.D. – 1-11/16 Bore
<b>BELT SIZES FOR T-300</b>			
<b>10.0 HP – 1200 RPM</b> NEMA Frame 284-U NEMA Frame 256-T	4-B-81 4-B-81	4-B-5.6 P.D. – 1-5/8 Bore 4-B-5.6 P.D. – 1-5/8 Bore	4-B-15.4 P.D. – 1-11/16 Bore 4-B-15.4 P.D. – 1-11/16 Bore
<b>10.0 HP – 1800 RPM</b> NEMA Frame 256-U NEMA Frame 215-T	5-B-83 5-B-81	5-B-4.4 P.D. – 1-3/8 Bore 5-B-4.4 P.D. – 1-3/8 Bore	5-B-18.4 P.D. – 1-11/16 Bore 5-B-18.4 P.D. – 1-11/16 Bore
<b>BELT SIZES FOR T-400</b>			
<b>15.0 HP – 1200 RPM</b> NEMA Frame 324-U NEMA Frame 284-T	2-5V-1250 5-B-97	2-5V-9.0 P.D. – 1-7/8 Bore 5-B-5.8 P.D. – 1-5/8 Bore	2-5V-28.0 P.D. – 2-3/16 Bore 5-B-18.4 P.D. – 2-3/16 Bore
<b>15.0 HP – 1800 RPM</b> NEMA Frame 284-U NEMA Frame 254-T	4-3V-1120 4-3V-1120	4-3V-5.3 P.D. – 1-5/8 Bore 4-3V-5.3 P.D. – 1-5/8 Bore	4-3V-25.0 P.D. – 2-3/16 Bore 4-3V-25.0 P.D. – 2-3/16 Bore
<b>20 HP – 1200 RPM</b> NEMA Frame 326-U NEMA Frame 286-T	2-5V-1250 6-B-97	2-5V-9.0 P.D. – 1-7/8 Bore 6-B-5.8 P.D. – 1-7/8 Bore	2-5V-28.0 P.D. – 2-3/16 Bore 6-B-18.4 P.D. – 2-3/16 Bore
<b>20.0 HP – 1800 RPM</b> NEMA Frame 286-U NEMA Frame 256-T	5-3V-1120 5-3V-1120	5-3V-5.3 P.D. – 1-5/8 Bore 5-3V-5.3 P.D. – 1-5/8 Bore	5-3V-25.0 P.D. – 2-3/16 Bore 5-3V-25.0 P.D. – 2-3/16 Bore



## REEVES TRANSMISSIONS ELECTRIC REMOTE CONTROL WIRING DIAGRAMS

Size 000, 115V, 1 PH, Universal Motor, Std. P.B.	1-38547-2
Size T100, 115V, 1 PH, Normal Duty, Std. P.B.	1-63572
Size T200, 115V, 1 PH, Normal Duty Std. P.B.	1-63575
Size T100, 115V, 1 PH, Normal Duty, Standard Pushbutton, with Transformer	1-63574
Size T200, 115V, 1 PH, Normal Duty, Standard Pushbutton, with Transformer	1-63577
Size T100 thru T400, 115V, 1 PH, Heavy Duty, Master Gearmotor, Std. P.B.	D-42000-07-G
Size T100 thru T400, 115V, 1 PH, Heavy Duty, Master Gearmotor, Std. P.B., with Transformer	D-42000-07-H

# ENGINEERING

## ENGINEERING INFORMATION—H1

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## ENGINEERING INFORMATION

### Shafting

**Table 1—Shafting Data**

Recommended Shaft Diameters						
$1\frac{1}{16}$	$1\frac{1}{8}$	$2\frac{1}{8}$	$3\frac{1}{8}$	$4\frac{1}{8}$	$5\frac{1}{8}$	$6\frac{1}{8}$
$1\frac{1}{8}$	$1\frac{1}{4}$	$2\frac{1}{4}$	$3\frac{1}{4}$	6	7	$7\frac{1}{2}$
$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{3}{8}$	$3\frac{3}{8}$	$4\frac{3}{8}$	$5\frac{3}{8}$	$6\frac{3}{8}$
Diameter Tolerance—Steel Shafting						
Shaft Size	Type	Plus	Minus			
Up to $1\frac{1}{2}$ "	Cold Drawn	.000	.002			
Over $1\frac{1}{2}$ to $2\frac{1}{2}$ "		.000	.003			
Over $2\frac{1}{2}$ to 4"		.000	.004			
Over 4 to 6"	Turned & Polished	.000	.005			
Over 6 to 8"		.000	.006			
Over 8 to 9"		.000	.007			
Over 9"		.000	.008			

▲ Cold finished low carbon bars.

Ref. — A.I.S.I. Tables 8-5 and 8-6.

(March 1986)

**Recommended Shaft Diameters**—Diameters shown at the right are recommended for general use. Stocks of collars, couplings, bearings, pulleys, sheaves, clutches and other transmission items having bores as recommended are carried in stock, at least up to  $3\frac{1}{8}$ ", in the principal trading centers.

**Standard Shafting**—Table 1, at right, indicates standard shafting is cold drawn in the smaller sizes and turned and polished in the larger diameters. It has a smooth surface, is commercially straight and is readily machinable; suitable and recommended for general power transmission and material handling service.

**Special Shafting**—While standard shafting is suitable for most installations, special shafting is sometimes required for certain chemical, temperature or physical requirements. Such materials as high carbon steel, alloy steel, stainless steel, brass, Monel metal, etc., can be furnished plain or heat treated. Bossed, flanged, hollow or other special forms are available.

Special shafting should be avoided in favor of standard shafting wherever possible because special shafting is usually considerably more expensive and requires a greater length of time to obtain, which is an especially important consideration should quick replacement ever become necessary.

**Ordering Shafting**—Standard shafting can be obtained from most supply houses and dealers who handle power transmission material.

**Turning Down Shaft Ends**—When necessary to turn down shaft ends, use as large a fillet as possible to keep the stress concentration to a minimum. The radius of this fillet should preferably be not less than the difference in the two diameters joined by the fillet. The fillet should be finished and polished as smoothly as possible to avoid scratches which might start cracks and failure of the shaft by fatigue.

**Keyseats**—For standard sizes see Tables 9 and 10, page H1-7.

## Selection of Shaft Diameters

Tables 2 thru 5 inclusive can be used to find approximate shaft diameter for various service conditions. For greater accuracy use chart under heading "Combined Torsion and Bending of Standard Shafts". (page H1-5).

Tables and chart are based upon a safe shear stress of 6,000 pounds per square inch for standard keyseated shafting. Be generous in the selection of shaft diameters as liberal diameters not only reduce deflection and vibration but also generally increase bearing life.

When necessary to use other than standard shafting, find the required diameter for standard shafting as outlined above and multiply by proper factor shown in Table 6, under heading—"Factors for Shafting Other than Standard Shafting." (page H1-4).

**Table 2—No Bending Moment. (Shafts without pulleys, sprockets or gears—Torsion only.)**

Shaft Size	Horse Power at Various Revolutions per Minute																		
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
$1\frac{1}{16}$	.3	.7	1.1	1.5	1.9	2.3	2.6	3.0	3.4	3.8	4.2	4.6	5.3	6.1	7.7	9.2	10.7	12.3	13.8
$1\frac{1}{8}$	.7	1.5	2.3	3.1	3.9	4.6	5.4	6.2	7.0	7.8	8.6	9.3	10.9	12.5	15.6	18.7	21.9	25.0	28.1
$1\frac{1}{4}$	1.3	2.7	4.1	5.5	6.9	8.3	9.7	11.1	12.4	13.8	15.2	16.6	19.4	22.2	27.7	33.3	38.8	44.4	49.9
$1\frac{3}{8}$	2.2	4.4	6.6	8.9	11.2	13.4	15.7	17.9	20.2	22.4	24.7	26.9	31.4	35.9	44.9	53.8	62.8	71.8	80.8
$1\frac{1}{2}$	3.3	6.7	10.1	13.5	16.9	20.3	23.7	27.1	30.5	33.9	37.3	40.7	47.5	54.3	67.9	81.5	95.1	108.	122.
$2\frac{1}{8}$	4.9	9.8	14.6	19.5	24.4	29.3	34.2	39.1	44.0	48.9	53.8	58.6	68.4	78.2	97.8	117.0	136.	156.	176.
$2\frac{1}{4}$	6.7	13.5	20.2	27.0	33.8	40.6	47.3	54.1	60.9	67.6	74.4	81.2	94.7	108.	135.	162.	189.	216.	243.
$2\frac{3}{8}$	9.0	18.1	27.1	36.2	45.3	54.4	63.4	72.5	81.6	90.7	99.7	108.	126.	145.	181.	217.	253.	290.	326.
$2\frac{1}{2}$	11.8	23.6	35.4	47.3	59.2	71.	82.9	94.7	106.	118.	130.	142.	165.	189.	236.	284.	331.	379.	426.
$3\frac{1}{8}$	19.0	37.9	57.0	75.9	94.9	113.	132.	151.	170.	189.	208.	227.	265.	303.	379.	455.	531.	607.	683.
$3\frac{1}{4}$	28.5	57.0	85.5	114.0	142.0	171.	199.	228.	256.	285.	313.	342.	399.	456.	570.	684.	798.	912.	1026.
$4\frac{1}{8}$	40.8	81.6	122.0	163.0	204.0	245.	286.	327.	367.	408.	449.	490.	572.	653.	816.	980.	1143.	1306.	1470.

# ENGINEERING INFORMATION

## Selection of Shaft Diameters (Con't.)

**Table 3—Limited Bending Moment.** (Pulleys, sprockets or gears near bearings. Ordinary line shafts.)

Shaft Size	Horse Power at Various Revolutions per Minute																		
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
1 1/8	.2	.5	.7	1.0	1.2	1.5	1.7	2.0	2.3	2.5	2.8	3.0	3.5	4.1	5.1	6.1	7.1	8.2	9.2
1 1/16	.5	1.0	1.5	2.0	2.6	3.1	3.6	4.1	4.7	5.2	5.7	6.2	7.3	8.3	10.4	12.5	14.6	16.7	18.8
1 1/8	.9	1.8	2.7	3.7	4.6	5.5	6.4	7.4	8.3	9.2	10.1	11.1	12.9	14.8	18.5	22.2	25.9	29.6	33.3
1 1/16	1.4	2.9	4.3	5.9	7.4	8.9	10.4	11.9	13.4	14.9	16.4	17.9	20.9	23.9	29.9	35.9	41.9	47.9	53.9
1 1/8	2.2	4.5	6.7	9.0	11.3	13.6	15.8	18.1	20.4	22.6	24.9	27.2	31.7	36.2	45.3	54.4	63.4	72.5	81.6
2 1/8	3.2	6.5	9.7	13.0	16.3	19.5	22.8	26.1	29.3	32.6	35.8	39.1	45.6	52.2	65.3	78.3	91.3	104	117
2 1/8	4.5	9.0	13.5	18.0	22.5	27.0	31.6	36.1	40.6	45.1	49.6	54.1	63.2	72.2	90.2	108	126	144	162
2 1/16	6.0	12.1	18.1	24.2	30.2	36.3	42.3	48.4	54.4	60.5	66.5	72.6	84.7	96.8	121	145	169	193	217
2 1/8	7.9	15.8	23.7	31.6	39.5	47.4	55.3	63.2	71.1	79.0	86.9	94.8	110	126	158	189	221	252	284
3 1/8	12.6	25.3	37.9	50.6	63.3	75.9	88.6	101	113	126	139	151	177	202	253	303	354	405	455
3 1/16	19.0	38.0	57.0	76.1	94.1	112	130	148	166	184	202	220	260	300	380	460	540	620	700
4 1/8	27	54	81	108	136	163	190	217	245	272	299	326	381	435	544	653	762	871	980
4 1/16	37	75	112	150	187	225	262	300	337	375	412	450	525	600	750	900	1050	1200	1350
5 1/8	50	100	150	200	250	300	350	400	451	501	551	601	701	801	1002	1202	1403	1603	1804
5 1/16	65	130	195	261	326	391	456	522	587	652	717	783	913	1044	1305	1566	1827	2088	2349
6 1/8	85	171	256	342	427	513	598	684	769	855	940	1026	1197	1368	1710	2052	2394	2736	3078

**Table 4—Heavy Bending Moment.** (Use for main or important shafts.)

Shaft Size		Horse Power at Various Revolutions per Minute																		
		25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
1 1/16		.8	1.7	2.5	3.5	4.4	5.3	6.2	7.1	8.0	8.9	9.8	10.7	12.5	14.3	17.9	21.5	25.1	28.7	32.3
1 1/8		1.3	2.7	4.0	5.4	6.7	8.1	9.5	10.8	12.2	13.5	14.9	16.3	19.0	21.7	27.1	32.6	38.0	43.5	48.9
2 1/8		1.9	3.9	5.8	7.8	9.7	11.7	13.7	15.6	17.6	19.5	21.5	23.4	27.4	31.3	39.1	46.9	54.8	62.6	70.4
2 1/16		2.7	5.4	8.1	10.8	13.5	16.2	18.9	21.6	24.3	27.0	29.7	32.4	37.9	43.3	54.1	64.9	75.8	86.6	97.4
2 1/8		3.6	7.2	10.8	14.5	18.1	21.7	25.4	29.0	32.6	36.2	39.9	43.5	50.8	58.0	72.5	87.1	101	116	130
3 1/8		4.7	9.4	14.1	18.9	23.6	28.4	33.1	37.9	42.6	47.3	52.1	56.8	66.3	75.8	94.7	113	132	151	170
3 1/16		7.5	15.1	22.6	30.3	37.9	45.5	53.1	60.7	68.3	75.9	83.5	91.1	106	121	151	182	212	243	273
3 1/8		11.4	22.8	34.2	45.6	57.0	68.4	79.9	91.3	102	114	125	136	159	182	228	273	319	365	410
4 7/8		16.3	32.6	48.9	65.3	81.6	98.0	114	130	147	163	179	196	228	261	326	392	457	522	588
4 1/16		22.5	45.0	67.5	90.0	112	135	157	180	202	225	247	270	315	360	450	540	630	720	810
5 7/8		30.0	60.0	90.0	120	150	180	210	240	270	300	330	360	420	480	600	720	840	960	1080
5 1/16		39.0	78.0	117	156	195	234	273	313	352	391	430	469	547	626	782	939	1095	1252	1409
6 5/8		51.0	102	153	205	256	308	359	410	462	513	564	616	718	821	1027	1232	1437	1643	1848
7		64.0	128	192	256	320	384	448	513	577	641	705	769	897	1026	1282	1539	1795	2052	2308
7 1/8		78.5	157	235	313	391	469	547	625	703	781	859	937	1094	1262	1577	1893	2208	2524	2839
8		95.5	191	286	382	478	574	670	766	861	957	1053	1148	1340	1531	1914	2297	2680	3063	3446
8 1/8		114	229	343	457	571	685	799	913	1027	1141	1255	1369	1607	1837	2296	2755	3215	3674	4133
9		136	272	408	545	681	817	954	1090	1226	1363	1499	1635	1908	2181	2726	3271	3816	4362	4907
9 1/8		160	320	480	640	800	960	1120	1282	1442	1603	1763	1923	2244	2565	3206	3847	4488	5130	5771
10		186	373	559	747	934	1121	1308	1495	1682	1869	2056	2243	2617	2991	3739	4487	5235	5983	6731

**Table 5—Severe Conditions.** (Heavy shock loads. Excessively tight belts. Long clutch sleeves.)

Shaft Size	Horse Power at Various Revolutions per Minute																		
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	500	600	700	800	900
1 1/16	.4	.8	1.2	1.7	2.2	2.6	3.1	3.5	4.0	4.4	4.9	5.3	6.2	7.1	8.9	10.7	12.5	14.3	16.1
1 1/8	.6	1.3	2.0	2.7	3.3	4.0	4.7	5.4	6.1	6.7	7.4	8.1	9.5	10.8	13.5	16.3	19.0	21.7	24.4
2 1/8	.9	1.9	2.9	3.9	4.8	5.8	6.8	7.8	8.8	9.7	10.7	11.7	13.7	15.6	19.5	23.4	27.3	31.2	35.2
2 1/16	1.3	2.7	4.0	5.4	6.7	8.1	9.4	10.8	12.1	13.5	14.8	16.2	18.9	21.6	27.0	32.4	37.9	43.3	48.7
2 1/8	1.8	3.6	5.4	7.2	9.0	10.8	12.7	14.5	16.3	18.1	19.9	21.7	25.4	29.0	36.2	43.5	50.8	58.0	65.3
2 1/16	2.3	4.7	7.0	9.4	11.8	14.2	16.5	18.9	21.3	23.6	26.0	28.4	33.1	37.9	47.3	56.6	65.9	75.2	84.5
3 1/8	3.7	7.5	11.3	15.1	18.9	22.7	26.5	30.3	34.1	37.9	41.7	45.5	53.0	60.5	75.5	91.0	106	121	136
3 1/16	5.7	11.4	17.1	22.8	28.5	34.2	39.9	45.6	51.3	57.0	62.7	68.4	81.6	94.8	119	143	167	191	215
4 1/8	8.1	16.3	24.4	32.6	40.8	49.0	57.2	65.4	73.6	81.8	89.9	98.1	114	130	163	196	229	261	294
4 1/16	11.2	22.5	33.7	45.0	56.0	67.5	78.5	90.0	101	112	123	135	157	180	225	270	315	360	405
5 1/8	15.0	30.0	45.0	60.0	75.0	90.0	105	120	135	150	165	180	210	240	300	360	420	480	540
5 1/16	19.5	39.0	58.5	78.0	97.5	117	136	156	175	195	215	234	273	313	391	469	547	626	704
6 1/8	25.5	51.0	76.5	102.5	128	154	179	205	231	256	282	308	358	408	513	616	718	821	924
7	32.0	64.0	96.0	128.0	160	192	224	256	288	320	352	384	448	512	640	768	896	1024	1152
7 1/8	39.2	78.5	117.7	157	197	236	276	315	354	394	433	473	552	631	788	946	1104	1262	1419
8	47.7	95.5	143.3	191	239	287	335	382	430	478	526	574	670	765	957	1148	1340	1531	1723
8 1/8	57.0	114	171	229	287	344	401	459	516	574	631	688	803	918	1148	1377	1607	1837	2066
9	68.0	136	204	272	340	408	477	545	613	681	749	817	954	1090	1363	1635	1908	2181	2453
9 1/8	80.0	160	240	320	400	480	561	641	721	801	881	961	1122	1282	1603	1923	2244	2565	2886
10	93.0	186	279	373	467	560	654	747	841	934	1028	1121	1308	1495	1869	2243	2617	2991	3365

Caution—Be generous in the selection of shaft diameters as liberal diameters not only reduce deflection and vibration but also generally increase bearing life. See notes on next page.



## ENGINEERING INFORMATION

### Selection of Shaft Diameters (Continued)

**Shaft Stiffness, Shaft Deflection**—Standard shafting of adequate strength usually has a sufficiently large diameter to prevent excessive deflection in ordinary installations. It is wise to select shafting of generous diameter, as the greater the diameter, the greater the stiffness. A high tensile strength alloy shaft, although stronger, is not stiffer than a standard shaft of the same diameter.

While it is sometimes possible to use an alloy shaft of less diameter than a standard shaft of equal strength, this practice is usually inadvisable, as the deflection is increased.

Shafts carrying medium or long clutch sleeves should be especially generous.

**High Speed Shafts**—High speed sometimes causes shaft whipping or vibration. Making the shaft diameter generous and the distance between bearing centers short usually prevents this trouble.

Location of the bearings close to wheels and couplings is advisable whether the shaft is transmitting heavy or light loads.

The use of high tensile strength alloy shafting instead of standard shafting is of no help in preventing vibration as this will not improve the stiffness and deflection characteristics of the shaft.

**Bossed Shafts**—For a heavily loaded wheel, a shaft with a boss or enlarged section under the wheel and turned to a smaller diameter at the bearings often provides the most economical installation. The two different diameters should be joined by a very generous fillet, as otherwise a dangerous concentration of stress

will occur at the fillet. See handling—"Turning Down Shaft Ends." (page H1-2).

**Shaft Keyseats**—Plain keyseats are preferable to round end keyseats in respect to causing the least concentration of stress. However, round end keyseats are often used because of design and assembly requirements. Ends left by the milling cutter should not project into babbitted or bronze bush bearing, but may project under the sleeve of any Dodge anti-friction bearings.

Shaft diameters obtained from the tables or chart allow for the use of keyseats.

**Shaft Bearings**—On ordinary line shafting, bearings are commonly spaced about eight feet centers. On large diameter shafts, the spacing may be somewhat greater.

Wheels and clutches should be located near bearings to avoid dangerous bending, deflection and vibration.

Bearings should be mounted on adequate supports so that accurate alignment may be maintained. Shafting misalignment may cause shaft or bearing failure.

**Shaft Couplings**—Where a rigid coupling is used it is preferable to have a bearing fairly close. Where a cut-off coupling or a flexible coupling is used locate bearings close to each end of the coupling.

**Expansion of Shafting**—Where changes in the length of the shaft due to changes in temperature are to be expected and the bearings are mounted on supporting structures other than steel, consideration must be given to expansion. For more detailed information see page H1-6, headed: "Expansion of Shafting."

## Factors for Shafting other than Standard Shafting

When it is necessary to use other than standard shafting, multiply required diameter for standard shafting as found in the tables or chart by proper factor from Table 6 below.

Standard keyseated shafting, using a safe shear stress of 6,000 PSI is the basis of shafting tables and chart. For safe shear stress of other materials, use 1/10 of nominal ultimate tensile strength. For example, use 8,000 for C1045 and 10,000 for 4140 keyseated shafting. When definite physical specifications are known the least of 13.5% of minimum ultimate tensile strength and 22.5% of minimum elastic limit in tension

may be used for keyseated shafting; 18% and 30% respectively if not keyseated.

**Caution**—As the deflection of steel shafting depends upon the diameter and not upon the analysis of the steel, care should be exercised in the use of alloy shafting not to reduce the diameter unduly. Deflection should not be excessive and bearing capacities should be adequate. It is usually best to use standard shafting instead of a smaller diameter alloy shaft. The smaller alloy shaft may safely transmit the torque but often is undesirable in respect to deflection, vibration and bearing life.

**Table 6—Shear Stress Factors**

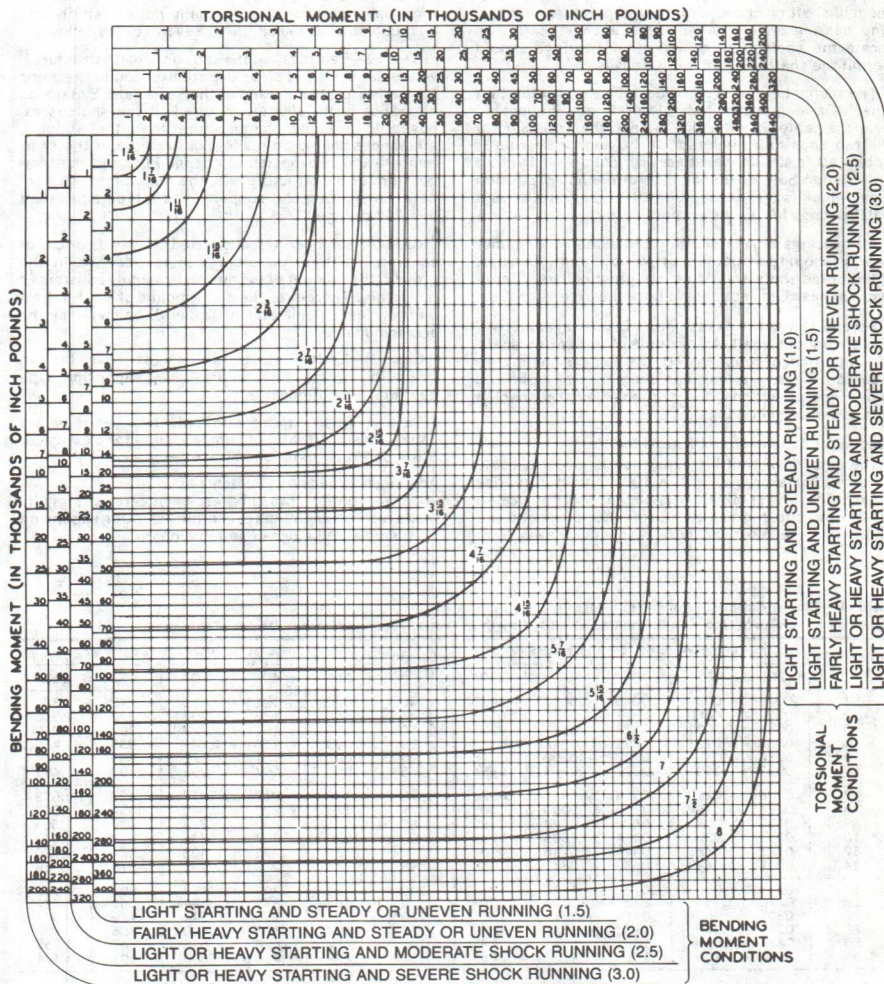
Safe Shear Stress	Factor	Safe Shear Stress	Factor	Safe Shear Stress	Factor	Safe Shear Stress	Factor	Safe Shear Stress	Factor
500	2.289	3,000	1.260	5,500	1.029	9,000	.874	14,000	.754
1,000	1.817	3,500	1.197	6,000	1.000	10,000	.843	15,000	.737
1,500	1.587	4,000	1.145	6,500	.974	11,000	.817	16,000	.721
2,000	1.442	4,500	1.101	7,000	.950	12,000	.794	17,000	.707
2,500	1.339	5,000	1.063	8,000	.909	13,000	.773	18,000	.693



# ENGINEERING INFORMATION

## Combined Torsion and Bending of Standard Shafts

(Based on a Safe Shear Stress of 6,000 PSI for Keyseated Shafting)



**Example:** Engine extension shaft driving single cylinder compressor, 15,000 pound-inches torsional moment, 14,000 pound-inches bending moment. Because of the heavy shock running load conditions use scales designated "Light or Heavy Starting and Severe Shock Running". Project a line down from 15,000 torsional moment. Project a line to the

**Note:** The above chart is based on ASME approved standard

ASA-B17C-1927 withdrawn in 1954. If the latest shaft selection analysis is required refer to ANSI/ASME B106.1M-1985.

**Note:** If considering use of other shafting material refer to "Selection of Shaft Diameters" on page H1-4.



## ENGINEERING INFORMATION

### Expansion of Shafting

Provision should be made to permit the free movement of shafting endwise due to temperature changes. One bearing should serve as an anchor bearing to locate the shaft endwise. All other bearings should permit the shaft to move freely endwise.

The anchor bearing is often located near an important wheel. On long shafts it should preferably be located near the center of the shaft to keep the expansion of the two ends to a minimum. If the anchor bearing is babbitted it should be fitted with collars. If it is an anti-friction bearing it should be of the non-expansion type, which is the designation of Dodge roller and ball bearings for use as anchor bearings.

All bearings on the shafting other than the anchor bearing should permit the shaft to move freely endwise. If babbitted there should be no thrust collars. If anti-friction these bearings should be of the expansion type.

Several shafts firmly fastened together expand as if one continuous shaft. An example of this is line shafting with flange couplings. If the expansion is considered excessive a long line shaft may be split into two or more sections, the sections being connected with expansion couplings.

#### Amount of Expansion to be provided for—

The amount of shafting expansion is given in Table 8 below. For example, with a 100° temperature rise on a 150 ft. line shaft with the anchor bearing located 70 ft. from one end and 80 ft. from the other end the ends will move .529" and .605" respectively away from

the anchor bearing. The structure supporting the bearings may also expand but usually not as rapidly and as much as does the shafting. Several cases follow:

Case 1—Bearings supported on steel structures, where the shaft and structure are exposed to the same temperatures, will expand at the same rate. Expansion allowance is usually not required. If the shaft is exposed to a higher temperature than the support, allowances should be made. For example, if the shaft temperature is expected to change 80°, and the temperature of the structure 60°, the resulting movement between shafting and support ends will be equivalent to a 20° change.

Case 2—For bearings supported on wood, brick, or concrete walls, or on piers with foundations in the ground, the amount of expansion is usually considered negligible. Therefore, the full amount of shafting expansion as calculated in Table 8 below, may be accommodated.

Case 3—Certain structural designs have built-in flexibility. Where this is the case, expansion type bearings are not necessary.

Case 4—Short shafts with only two bearings are usually designed without compensation for expansion, if temperature variations are not excessive.

#### Advice on Expansion Problems—

Dodge power transmission engineers will gladly make recommendations concerning shafting expansion problems and the use of suitable bearings.

**Table 8—Linear Expansion of Steel Shafting**

Based on Expansion in Inches =  $0.0000063 \times 12 \times \text{Length in Feet} \times \text{Temp. Increase in Degrees Fahrenheit}$

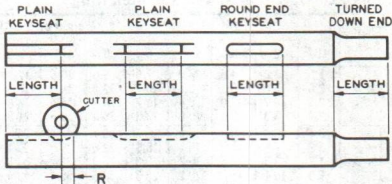
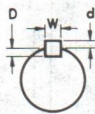
Length (Feet)	Temperature Increase—Degrees F.					Length (Feet)	Temperature Increase—Degrees F.				
	20°	40°	60°	80°	100°		20°	40°	60°	80°	100°
1	.0015"	.0030"	.0045"	.0060"	.0075"	40	.060"	.121"	.181"	.242"	.302"
2	.0030	.0060	.0091	.0121	.0151	45	.068	.136	.204	.272	.340
3	.0045	.0091	.0136	.0181	.0227	50	.076	.151	.227	.302	.378
4	.0060	.0121	.0181	.0242	.0302	55	.083	.166	.249	.333	.416
5	.0076	.0151	.0227	.0302	.0378	60	.091	.181	.272	.363	.454
6	.0091	.0181	.0272	.0363	.0454	65	.098	.197	.295	.393	.491
7	.0106	.0212	.0318	.0423	.0529	70	.106	.212	.317	.423	.529
8	.0121	.0242	.0363	.0484	.0605	75	.113	.227	.340	.454	.567
9	.0136	.0272	.0408	.0544	.0680	80	.121	.242	.363	.484	.605
10	.0151	.0302	.0454	.0605	.0756	85	.129	.257	.386	.514	.643
12	.0181	.0363	.0544	.0726	.0907	90	.136	.272	.408	.544	.680
14	.0212	.0423	.0635	.0847	.1058	95	.144	.287	.431	.575	.718
16	.024	.048	.073	.097	.121	100	.151	.302	.454	.605	.756
18	.027	.054	.082	.109	.136	110	.166	.333	.499	.665	.832
20	.030	.060	.091	.121	.151	120	.181	.363	.544	.726	.907
25	.038	.076	.113	.151	.189	130	.197	.393	.590	.786	.983
30	.045	.091	.136	.181	.227	140	.212	.423	.635	.847	1.058
35	.053	.106	.159	.212	.265	150	.227	.454	.680	.907	1.134

# ENGINEERING INFORMATION

## Shaft Keyseats/Hub Keyways

Table 9—Standard Keyseats/Keyways

Shaft Size	W Width	D, d Depth		R Cutter Run-out
		Reg-ular	Shal-low	
$\frac{1}{8}$ to $\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{16}$		$\frac{1}{8}$
$\frac{1}{4}$ to $\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4}$		$\frac{1}{16}$
$\frac{3}{8}$ to $\frac{1}{2}$	$\frac{5}{8}$	$\frac{5}{16}$		$\frac{1}{16}$
$\frac{1}{2}$ to $\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{8}$		$\frac{1}{16}$
$\frac{3}{4}$ to $1$	$\frac{7}{8}$	$\frac{7}{16}$		$\frac{1}{16}$
$1$ to $1\frac{1}{8}$	$1\frac{1}{8}$	$1\frac{1}{8}$		$\frac{1}{16}$
$1\frac{1}{8}$ to $1\frac{1}{4}$	$1\frac{1}{4}$	$1\frac{1}{4}$		$\frac{1}{16}$
$1\frac{1}{4}$ to $1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$		$\frac{1}{16}$
$1\frac{1}{2}$ to $1\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{4}$		$\frac{1}{16}$
$1\frac{3}{4}$ to $2$	$2$	$2$		$\frac{1}{16}$
$2$ to $2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$		$\frac{1}{16}$
$2\frac{1}{4}$ to $2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$		$\frac{1}{16}$
$2\frac{1}{2}$ to $2\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{3}{4}$		$\frac{1}{16}$
$2\frac{3}{4}$ to $3$	$3$	$3$		$\frac{1}{16}$
$3$ to $3\frac{1}{4}$	$3\frac{1}{4}$	$3\frac{1}{4}$		$\frac{1}{16}$
$3\frac{1}{4}$ to $3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$		$\frac{1}{16}$
$3\frac{1}{2}$ to $3\frac{3}{4}$	$3\frac{3}{4}$	$3\frac{3}{4}$		$\frac{1}{16}$
$3\frac{3}{4}$ to $4$	$4$	$4$		$\frac{1}{16}$
$4$ to $4\frac{1}{4}$	$4\frac{1}{4}$	$4\frac{1}{4}$		$\frac{1}{16}$
$4\frac{1}{4}$ to $4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$		$\frac{1}{16}$
$4\frac{1}{2}$ to $4\frac{3}{4}$	$4\frac{3}{4}$	$4\frac{3}{4}$		$\frac{1}{16}$
$4\frac{3}{4}$ to $5$	$5$	$5$		$\frac{1}{16}$
$5$ to $5\frac{1}{4}$	$5\frac{1}{4}$	$5\frac{1}{4}$		$\frac{1}{16}$
$5\frac{1}{4}$ to $5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$		$\frac{1}{16}$
$5\frac{1}{2}$ to $5\frac{3}{4}$	$5\frac{3}{4}$	$5\frac{3}{4}$		$\frac{1}{16}$
$5\frac{3}{4}$ to $6$	$6$	$6$		$\frac{1}{16}$
$6$ to $6\frac{1}{4}$	$6\frac{1}{4}$	$6\frac{1}{4}$		$\frac{1}{16}$
$6\frac{1}{4}$ to $6\frac{1}{2}$	$6\frac{1}{2}$	$6\frac{1}{2}$		$\frac{1}{16}$
$6\frac{1}{2}$ to $6\frac{3}{4}$	$6\frac{3}{4}$	$6\frac{3}{4}$		$\frac{1}{16}$
$6\frac{3}{4}$ to $7$	$7$	$7$		$\frac{1}{16}$
$7$ to $7\frac{1}{4}$	$7\frac{1}{4}$	$7\frac{1}{4}$		$\frac{1}{16}$
$7\frac{1}{4}$ to $7\frac{1}{2}$	$7\frac{1}{2}$	$7\frac{1}{2}$		$\frac{1}{16}$
$7\frac{1}{2}$ to $7\frac{3}{4}$	$7\frac{3}{4}$	$7\frac{3}{4}$		$\frac{1}{16}$
$7\frac{3}{4}$ to $8$	$8$	$8$		$\frac{1}{16}$
$8$ to $8\frac{1}{4}$	$8\frac{1}{4}$	$8\frac{1}{4}$		$\frac{1}{16}$
$8\frac{1}{4}$ to $8\frac{1}{2}$	$8\frac{1}{2}$	$8\frac{1}{2}$		$\frac{1}{16}$
$8\frac{1}{2}$ to $8\frac{3}{4}$	$8\frac{3}{4}$	$8\frac{3}{4}$		$\frac{1}{16}$
$8\frac{3}{4}$ to $9$	$9$	$9$		$\frac{1}{16}$
$9$ to $9\frac{1}{4}$	$9\frac{1}{4}$	$9\frac{1}{4}$		$\frac{1}{16}$
$9\frac{1}{4}$ to $9\frac{1}{2}$	$9\frac{1}{2}$	$9\frac{1}{2}$		$\frac{1}{16}$
$9\frac{1}{2}$ to $9\frac{3}{4}$	$9\frac{3}{4}$	$9\frac{3}{4}$		$\frac{1}{16}$
$9\frac{3}{4}$ to $10$	$10$	$10$		$\frac{1}{16}$
$10$ to $10\frac{1}{4}$	$10\frac{1}{4}$	$10\frac{1}{4}$		$\frac{1}{16}$
$10\frac{1}{4}$ to $10\frac{1}{2}$	$10\frac{1}{2}$	$10\frac{1}{2}$		$\frac{1}{16}$
$10\frac{1}{2}$ to $10\frac{3}{4}$	$10\frac{3}{4}$	$10\frac{3}{4}$		$\frac{1}{16}$
$10\frac{3}{4}$ to $11$	$11$	$11$		$\frac{1}{16}$
$11$ to $11\frac{1}{4}$	$11\frac{1}{4}$	$11\frac{1}{4}$		$\frac{1}{16}$
$11\frac{1}{4}$ to $11\frac{1}{2}$	$11\frac{1}{2}$	$11\frac{1}{2}$		$\frac{1}{16}$
$11\frac{1}{2}$ to $11\frac{3}{4}$	$11\frac{3}{4}$	$11\frac{3}{4}$		$\frac{1}{16}$
$11\frac{3}{4}$ to $12$	$12$	$12$		$\frac{1}{16}$
$12$ to $12\frac{1}{4}$	$12\frac{1}{4}$	$12\frac{1}{4}$		$\frac{1}{16}$
$12\frac{1}{4}$ to $12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$		$\frac{1}{16}$
$12\frac{1}{2}$ to $12\frac{3}{4}$	$12\frac{3}{4}$	$12\frac{3}{4}$		$\frac{1}{16}$
$12\frac{3}{4}$ to $13$	$13$	$13$		$\frac{1}{16}$



**Shaft Keyseats** are always straight and may be furnished plain or round end as required. They will be regular depth "D" even when shallow or special keyways are used in the hub.

**Standard Keyseats/Keyways** will be furnished in most DODGE products. Exceptions will be found in catalog listings herein. Some are shown under headings "Shallow Keyseats", below and Taper-Lock bushing keyways referred to in Table 10.

**Setscrews** are furnished in hubs over straight keyways on practically all products. Setscrews over tapered keyways are not usually furnished.

**Shallow Keyseats** are furnished on the O.D. of most clutch sleeves. Hubs fitted thereon usually have shallow keyways. In other product lines, hubs with abnormally large bores may be furnished with shallow or special keyways when considered advisable.

**Special Keyways** should be avoided whenever possible.

**Hub Keyways** will normally be furnished to comply with the standard dimensions shown in Table 9. They will be straight unless tapered keyways are specified. Tapered keyways, available in hubs only, will be "d" depth at the large end of the bore; taper,  $\frac{1}{8}$  per foot.

Table 10—TAPER-LOCK Bushing Keyways

Bushing	Shaft Size	Bushing Wxd	Shaft Wxd	Bushing	Shaft Size	Bushing Wxd	Shaft Wxd	Bushing	Shaft Size	Bushing Wxd	Shaft Wxd
1008	$\frac{1}{2}$ to $\frac{5}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	2525	$\frac{3}{4}$ to $\frac{7}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	5050	$\frac{2}{16}$ to $\frac{3}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{5}{8}$ to $\frac{3}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{2}$ to $\frac{1}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{21}{16}$ to $\frac{3}{4}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{3}{4}$ to $1$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{4}$ to $\frac{1}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{3}{4}$ to $\frac{1}{2}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
1108	$\frac{1}{2}$ to $\frac{5}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	3020 and 3030	$\frac{1}{2}$ to $\frac{1}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	6050	$\frac{3}{16}$ to $\frac{3}{4}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{5}{8}$ to $\frac{3}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{4}$ to $\frac{1}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{31}{16}$ to $\frac{1}{2}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{3}{4}$ to $1$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{8}$ to $\frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{5}{16}$ to $\frac{5}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
1210 and 1215	$\frac{1}{2}$ to $\frac{5}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	3535	$\frac{1}{2}$ to $\frac{1}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	7060	$\frac{4}{16}$ to $\frac{4}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{5}{8}$ to $\frac{3}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{4}$ to $\frac{1}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{5}{16}$ to $\frac{5}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{3}{4}$ to $1$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{8}$ to $\frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{6}{16}$ to $\frac{6}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
1310	$\frac{1}{2}$ to $\frac{5}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	4040	$\frac{1}{2}$ to $\frac{1}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	8065	$\frac{4}{16}$ to $\frac{4}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{5}{8}$ to $\frac{3}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{4}$ to $\frac{1}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{5}{16}$ to $\frac{5}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{3}{4}$ to $1$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{8}$ to $\frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{6}{16}$ to $\frac{6}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
1610 and 1615	$\frac{1}{2}$ to $\frac{5}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	4545	$\frac{1}{2}$ to $\frac{1}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	10085	$\frac{7}{16}$ to $\frac{7}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{5}{8}$ to $\frac{3}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{4}$ to $\frac{1}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{8}{16}$ to $\frac{8}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{3}{4}$ to $1$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{8}$ to $\frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{9}{16}$ to $\frac{9}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
2012	$\frac{1}{2}$ to $\frac{5}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	4545	$\frac{1}{2}$ to $\frac{1}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	120100	$\frac{9}{16}$ to $\frac{9}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{5}{8}$ to $\frac{3}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{4}$ to $\frac{1}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{10}{16}$ to $\frac{10}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{3}{4}$ to $1$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{8}$ to $\frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{11}{16}$ to $\frac{11}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
2517	$\frac{1}{2}$ to $\frac{5}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	4545	$\frac{1}{2}$ to $\frac{1}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	120100	$\frac{12}{16}$ to $\frac{12}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{5}{8}$ to $\frac{3}{4}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{4}$ to $\frac{1}{8}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{13}{16}$ to $\frac{13}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$
	$\frac{3}{4}$ to $1$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{1}{8}$ to $\frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$	$\frac{1}{8} \times \frac{1}{16}$		$\frac{14}{16}$ to $\frac{14}{16}$	$\frac{3}{8} \times \frac{1}{16}$	$\frac{3}{8} \times \frac{1}{16}$

TAPER-LOCK bushing keyways and shaft keyseats are the same as standard shown in table at top of page except that the depth in the bushing only is different in some cases. Special keyways should be avoided whenever possible. Taper keyways or set screws over keyways are never furnished in TAPER-LOCK bushings.

▲ Key furnished for these sizes only.

\* On 3020 size only.



# ENGINEERING INFORMATION

## Weights and Properties of Steel Shafting

**Table 11—Weight of Round Steel Shafting**

Shaft Size	Weight of Shafting for Various Lengths in Feet																		Weight Per Inch
	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24		
$\frac{1}{8}$	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15	18	21	24	27	30	33	36	.125	
$\frac{1}{4}$	2.0	4.0	6.1	8.1	10.2	12.2	14.3	16.3	18.4	20	25	29	33	37	41	45	49	.170	
$\frac{3}{8}$	2.3	4.7	7.0	9.4	11.7	14.1	16.5	18.8	21.2	23	28	33	38	42	47	52	56	.195	
$\frac{1}{2}$	2.7	5.3	8.0	10.6	13.3	16.0	18.6	21.3	24.0	27	32	37	43	48	53	59	64	.223	
$\frac{5}{8}$	3.4	6.8	10.0	13.4	16.7	20.1	23.4	26.7	30.1	34	41	47	54	61	68	74	81	.281	
$\frac{3}{4}$	3.8	7.6	11.3	15.1	18.9	22.6	26.4	30.1	34.0	38	45	53	60	68	75	83	90	.314	
$\frac{7}{8}$	4.2	8.3	12.5	16.7	20.8	25.0	29.2	33.3	37.5	42	50	58	67	75	83	92	100	.348	
$1\frac{1}{8}$	5.0	10.1	15.3	20.2	25.3	30.3	35.4	40.4	45.4	50	60	71	81	91	101	111	121	.420	
$1\frac{1}{4}$	5.5	11	17	22	28	33	39	44	50	55	66	77	88	99	110	121	133	.460	
$1\frac{1}{2}$	6.0	12	18	24	30	36	42	48	54	60	72	84	96	108	120	132	144	.500	
$1\frac{3}{4}$	7.6	15	23	30	38	46	53	61	68	76	91	107	122	137	152	167	183	.634	
$2\frac{1}{8}$	10.0	20	30	40	50	60	70	80	90	100	120	140	161	181	201	221	241	.835	
$2\frac{1}{4}$	10.7	21	32	43	53	64	75	85	96	107	128	150	171	192	214	235	256	.890	
$2\frac{1}{2}$	12.8	26	38	51	64	77	90	102	115	128	153	179	205	230	256	281	307	1.06	
$2\frac{3}{4}$	15.9	32	48	63	79	95	111	127	143	159	190	222	254	286	317	349	381	1.32	
$3\frac{1}{8}$	16.7	34	50	67	83	100	117	134	150	167	200	234	267	301	334	367	401	1.39	
$3\frac{1}{4}$	19.3	39	58	77	97	116	135	154	174	193	232	270	309	348	386	425	463	1.61	
$3\frac{1}{2}$	23.0	46	69	92	115	138	161	184	208	231	277	323	369	415	461	507	553	1.92	
$3\frac{3}{4}$	31.6	63	95	126	158	189	221	253	284	316	379	442	505	568	631	695	758	2.63	
$4\frac{1}{8}$	41.4	83	124	166	207	248	290	331	373	414	497	580	662	745	828	911	994	3.45	
$4\frac{1}{4}$	52.6	105	158	210	263	315	368	421	473	526	631	736	841	946	1052	1157	1262	4.38	
$4\frac{1}{2}$	65.1	130	195	260	326	391	456	521	586	651	781	911	1041	1172	1302	1432	1562	5.42	
$4\frac{3}{4}$	79.0	158	237	316	395	474	553	632	711	790	947	1105	1263	1421	1579	1737	1894	6.58	
$5\frac{1}{8}$	96	192	288	384	481	577	673	769	865	961	1154	1346	1538	1730	1923	2115	2307	8.01	

\* Recommended Diameters—These shaft diameters are recommended for use whenever possible as various transmission items such as couplings,

collars, clutches, pulleys, etc., are carried in stock in these sizes, at least up to  $3\frac{1}{4}$ " in the principal cities throughout the United States.

**Table 12—Weight and Properties of Round Steel Shafting**

Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia		Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia	
		Bending	Torsion	Bending	Torsion			Bending	Torsion	Bending	Torsion
$\frac{1}{8}$	.00087	.000024	.000048	.000001	.000002	$2\frac{1}{8}$	1.32	1.422	2.844	1.733	3.466
$\frac{1}{4}$	.0035	.000192	.000383	.000012	.000024	$2\frac{1}{4}$	1.39	1.534	3.068	1.918	3.833
$\frac{3}{8}$	.0078	.000647	.001294	.000061	.000121	$2\frac{1}{2}$	1.46	1.652	3.304	2.117	4.233
$\frac{1}{2}$	.0139	.001534	.003068	.000192	.000383	$2\frac{3}{4}$	1.53	1.776	3.552	2.331	4.661
$\frac{5}{8}$	.0217	.002996	.005992	.000468	.000936	$3\frac{1}{8}$	1.61	1.906	3.811	2.561	5.122
$\frac{3}{4}$	.0313	.005177	.010354	.000971	.001942	$3\frac{1}{4}$	1.68	2.042	4.084	2.807	5.615
$\frac{7}{8}$	.0425	.008221	.016442	.001798	.003597	$3\frac{1}{2}$	1.76	2.184	4.368	3.071	6.143
$1\frac{1}{8}$	.0556	.0123	.0245	.0031	.0061	$3\frac{3}{4}$	1.84	2.333	4.666	3.354	6.707
$1\frac{1}{4}$	.0705	.0175	.0349	.0049	.0098	$3\frac{1}{2}$	1.92	2.489	4.977	3.655	7.310
$1\frac{1}{2}$	.0868	.0240	.0479	.0075	.0150	3	2.00	2.651	5.301	3.976	7.952
$1\frac{3}{4}$	.1051	.0319	.0638	.0110	.0219	$3\frac{1}{8}$	2.08	2.820	5.640	4.318	8.631
$1\frac{1}{2}$	.1250	.0414	.0828	.0155	.0311	$3\frac{1}{4}$	2.17	2.996	5.992	4.681	9.361
$1\frac{3}{4}$	.1467	.0527	.1053	.0214	.0428	$3\frac{1}{2}$	2.26	3.179	6.359	5.067	10.13
$1\frac{1}{2}$	.1701	.0658	.1315	.0288	.0575	$3\frac{3}{4}$	2.35	3.370	6.740	5.477	10.95
$1\frac{3}{4}$	.1954	.0809	.1618	.0379	.0758	$3\frac{1}{2}$	2.44	3.568	7.137	5.910	11.82
1	.22	.0982	.1963	.0491	.0982	3	2.53	3.774	7.548	6.369	12.74
$1\frac{1}{8}$	.25	.1178	.2355	.0626	.1251	$3\frac{1}{8}$	2.63	3.988	7.976	6.854	13.71
$1\frac{1}{4}$	.28	.1398	.2796	.0786	.1573	$3\frac{1}{4}$	2.72	4.209	8.419	7.366	14.73
$1\frac{1}{2}$	.31	.1644	.3288	.0976	.1952	$3\frac{1}{2}$	2.82	4.439	8.878	7.907	15.81
$1\frac{3}{4}$	.35	.1917	.3835	.1198	.2397	$3\frac{3}{4}$	2.92	4.677	9.353	8.476	16.95
$1\frac{1}{2}$	.38	.2220	.4439	.1457	.2913	$3\frac{1}{8}$	3.02	4.923	9.845	9.076	18.15
$1\frac{3}{4}$	.42	.2552	.5104	.1755	.3509	$3\frac{1}{4}$	3.13	5.177	10.35	9.707	19.41
$1\frac{1}{2}$	.46	.2916	.5832	.2096	.4192	$3\frac{1}{2}$	3.23	5.440	10.88	10.37	20.74
$1\frac{3}{4}$	.50	.3313	.6627	.2485	.4970	$3\frac{3}{4}$	3.34	5.712	11.42	11.07	22.14
$1\frac{1}{2}$	.54	.3745	.7490	.2926	.5852	$3\frac{1}{8}$	3.45	5.993	11.99	11.80	23.60
$1\frac{3}{4}$	.59	.4213	.8425	.3423	.6846	4	3.56	6.283	12.57	12.57	25.13
$1\frac{1}{2}$	.63	.4718	.9435	.3981	.7961	$4\frac{1}{8}$	3.67	6.582	13.16	13.37	26.74
$1\frac{3}{4}$	.68	.5262	1.052	.4604	.9208	$4\frac{1}{4}$	3.78	6.891	13.78	14.21	28.42
$1\frac{1}{2}$	.73	.5846	1.169	.5298	1.060	$4\frac{1}{2}$	3.90	7.209	14.42	15.09	30.19
$1\frac{3}{4}$	.78	.6471	1.294	.6067	1.213	$4\frac{3}{4}$	4.01	7.536	15.07	16.01	32.03
$1\frac{1}{2}$	.83	.7140	1.428	.6917	1.384	$4\frac{1}{8}$	4.13	7.874	15.75	16.98	33.96
2	.89	.7854	1.571	.7854	1.571	$4\frac{1}{4}$	4.25	8.221	16.44	17.98	35.97
$2\frac{1}{8}$	.94	.8614	1.723	.8883	1.777	$4\frac{1}{2}$	4.38	8.579	17.16	19.03	38.07
$2\frac{1}{4}$	1.00	.9421	1.884	1.001	2.002	$4\frac{3}{4}$	4.50	8.946	17.89	20.13	40.26
$2\frac{1}{2}$	1.06	1.028	2.055	1.124	2.248	$4\frac{1}{8}$	4.63	9.324	18.65	21.27	42.54
$2\frac{3}{4}$	1.13	1.118	2.237	1.258	2.516	$4\frac{1}{4}$	4.75	9.713	19.43	22.46	44.92
$2\frac{1}{2}$	1.19	1.214	2.428	1.404	2.808	$4\frac{1}{2}$	4.88	10.11	20.22	23.70	47.40
$2\frac{3}{4}$	1.25	1.315	2.630	1.562	3.124	$4\frac{3}{4}$	5.01	10.52	21.04	24.99	49.98

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Table 12—Weight and Properties of Round Steel Shafting (Continued)

Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia		Shaft Size	Weight per Inch	Section Modulus		Moment of Inertia	
		Bending	Torsion	Bending	Torsion			Bending	Torsion	Bending	Torsion
4 1/8	5.15	10.94	21.88	26.33	52.66	13 1/2	40.5	241.5	483.1	1630	3261
4 7/8	5.28	11.37	22.75	27.72	55.45	14	42.0	255.2	510.4	1755	3509
4 1/2	5.42	11.82	23.63	29.17	58.35	14 1/2	43.6	269.4	538.8	1886	3771
5	5.56	12.27	24.54	30.68	61.36	15	45.1	284.1	568.2	2024	4048
5 1/8	5.70	12.74	25.43	32.24	64.49	15 1/2	46.7	299.3	598.6	2170	4340
5 1/2	5.84	13.22	26.48	33.86	67.73	16	48.4	315.0	630.1	2324	4647
5 3/4	5.98	13.70	27.41	35.55	71.09	16 1/2	50.0	331.3	662.7	2485	4970
5 1/4	6.13	14.21	28.41	37.29	74.58	17	51.7	348.2	696.4	2655	5310
5 3/8	6.27	14.72	29.44	39.10	78.20	17 1/2	53.4	365.6	731.2	2833	5667
5 1/2	6.42	15.25	30.49	40.97	81.94	18	55.1	383.6	767.1	3021	6041
5 3/4	6.58	15.78	31.57	42.91	85.82	18 1/2	56.9	402.1	804.2	3217	6434
5 1/2	6.72	16.33	32.67	44.92	89.84	19	58.7	421.3	842.5	3422	6846
5 3/8	6.88	16.90	33.79	46.99	93.99	19 1/2	60.5	441.0	882.0	3638	7277
5 1/2	7.03	17.47	34.95	49.14	98.29	20	62.4	461.4	922.7	3864	7728
5 3/4	7.19	18.06	36.12	51.36	102.7	20 1/2	64.2	482.3	964.7	4100	8200
5 1/2	7.35	18.66	37.33	53.66	107.3	21	66.1	503.9	1008	4346	8693
5 3/8	7.51	19.28	38.56	56.03	112.1	21 1/2	68.1	526.2	1052	4604	9208
5 1/2	7.67	19.91	39.82	58.48	117.0	22	70.0	549.1	1098	4873	9745
5 3/8	7.84	20.55	41.10	61.01	122.0	22 1/2	72.0	572.6	1145	5153	10306
6	8.00	21.21	42.41	63.62	127.2	23	74.0	596.7	1193	5445	10891
6 1/8	8.17	21.88	43.75	66.31	132.6	23 1/2	76.1	621.6	1243	5750	11500
6 1/4	8.34	22.56	45.12	69.09	138.2	24	78.1	647.1	1294	6067	12134
6 1/2	8.51	23.26	46.51	71.95	143.9	24 1/2	80.2	673.4	1347	6397	12794
6 3/4	8.68	23.97	47.94	74.90	149.8	25	82.4	700.3	1401	6741	13481
6 1/2	8.86	24.69	49.39	77.94	155.9	25 1/2	84.5	728.0	1456	7098	14195
6 3/8	9.03	25.44	50.87	81.08	162.2	26	86.7	756.3	1513	7469	14937
6 1/2	9.21	26.19	52.38	84.30	168.6	26 1/2	88.9	785.4	1571	7854	15708
6 3/4	9.39	26.96	53.92	87.62	175.2	27	91.1	815.2	1630	8254	16508
6 1/2	9.56	27.75	55.49	91.06	181.9	27 1/2	93.4	845.8	1692	8669	17339
6 3/4	10.1	30.19	60.39	101.9	203.8	28	95.7	877.1	1754	9100	18200
6 1/2	10.5	31.90	63.80	109.7	219.3	28 1/2	98.0	909.2	1818	9547	19093
7	10.9	33.67	67.35	117.9	235.7	29	100.4	942.1	1884	10009	20019
7 1/8	11.3	35.51	71.02	126.5	253.0	29 1/2	102.7	975.7	1951	10489	20978
7 1/4	11.7	37.41	74.82	135.6	271.2	30	105.1	1010	2020	10985	21970
7 1/2	12.1	39.38	78.76	145.2	290.4	30 1/2	107.6	1045	2091	11499	22998
7 3/8	12.5	41.42	82.84	155.3	310.6	31	110.0	1081	2163	12031	24061
7 1/2	12.9	43.52	87.05	165.9	331.9	31 1/2	112.5	1118	2237	12581	25161
7 3/4	13.3	45.70	91.40	177.1	354.2	32	115.0	1156	2312	13149	26298
7 1/2	13.8	47.95	95.89	188.8	377.6	32 1/2	117.6	1194	2389	13737	27473
8	14.3	50.27	100.5	201.1	402.1	33	120.1	1234	2468	14344	28687
8 1/8	14.7	52.66	105.3	213.9	427.9	33 1/2	122.7	1274	2548	14971	29941
8 1/4	15.1	55.13	110.3	227.4	454.8	34	125.4	1315	2630	15618	31236
8 1/2	15.6	57.67	115.3	241.5	483.0	34 1/2	128.0	1357	2714	16286	32572
8 3/4	16.1	60.29	120.6	256.2	512.5	35	130.7	1400	2800	16975	33951
8 1/2	16.5	62.99	126.0	271.6	543.3	35 1/2	133.4	1444	2888	17686	35372
8 3/8	17.0	65.77	131.6	287.7	575.5	36	136.2	1488	2977	18419	36838
8 1/2	17.5	68.63	137.3	304.5	609.1	36 1/2	138.9	1534	3068	19175	38350
9	18.0	71.57	143.1	322.1	644.1	37	141.7	1580	3161	19954	39907
9 1/8	18.5	74.59	149.2	340.3	680.7	37 1/2	144.5	1628	3256	20755	41511
9 1/4	19.0	77.70	155.4	359.4	718.7	38	147.4	1676	3352	21581	43163
9 1/2	19.5	80.89	161.8	379.2	758.4	38 1/2	150.3	1726	3451	22432	44864
9 3/4	20.1	84.17	168.3	399.8	799.6	39	153.2	1776	3552	23307	46614
9 1/2	20.6	87.54	175.1	421.3	842.6	39 1/2	156.1	1827	3654	24208	48415
9 3/8	21.1	90.99	182.0	443.6	887.2	40	159.0	1879	3758	25134	50268
9 1/2	21.7	94.54	189.1	466.8	933.6	40 1/2	162.0	1932	3865	26087	52174
10	22.2	98.17	196.3	490.9	981.7	41	165.1	1986	3973	27074	54148
10 1/8	23.4	105.72	211.4	541.8	1084	41 1/2	174.3	2155	4310	30172	60344
10 1/2	24.5	113.65	227.3	596.7	1193	42	180.5	2273	4645	32385	64771
10 3/8	25.7	121.96	243.9	655.5	1311	42 1/2	186.9	2394	4789	34719	69437
11	26.9	130.67	261.3	718.7	1437	43	193.4	2520	5041	37176	74351
11 1/8	28.1	139.78	279.6	786.3	1573	43 1/2	200.0	2651	5301	39761	79522
11 1/2	29.4	149.31	298.6	858.5	1717	44	206.8	2785	5571	42479	84957
11 3/8	30.7	159.26	318.5	935.7	1871	44 1/2	213.6	2925	5849	45333	90666
11 1/2	32.0	169.65	339.3	1018	2036	45	220.5	3069	6137	48329	96659
12	33.4	180.47	360.9	1105	2211	45 1/2	227.6	3217	6434	51472	102944
12 1/2	34.7	191.75	383.5	1198	2397	46	234.8	3370	6740	54765	109530
12 3/4	36.1	203.48	407.0	1297	2594	46 1/2	242.1	3528	7056	58214	116428
13	37.6	215.69	431.4	1402	2804	47	256.9	3859	7717	65597	131194
13 1/8	39.0	228.37	456.7	1513	3026	47 1/2	272.3	4209	8418	73662	147324



# ENGINEERING INFORMATION

## English Standard Measures

### Long Measure

- 1 mile = 1760 yards = 5280 feet.
- 1 yard = 3 feet = 36 inches.
- 1 foot = 12 inches.

### Surveyor's Measure

- 1 mile = 8 furlongs = 80 chains.
- 1 furlong = 10 chains = 220 yards.
- 1 chain = 4 rods = 22 yards = 66 feet = 100 links.
- 1 link = 7.92 inches.

### Square Measure

- 1 square mile = 640 acres = 6400 square chains.
- 1 acre = 10 square chains = 4840 square yards = 43,560 square feet.
- 1 square chain = 16 square rods = 484 square yards = 4356 square feet.
- 1 square rod = 30.25 square yards = 272.25 square feet = 625 square links.
- 1 square yard = 9 square feet.
- 1 square foot = 144 square inches.
- An acre is equal to a square, the side of which is 208.7 feet.

### Dry Measure

- 1 bushel (U.S. or Winchester struck bushel) = 1.2445 cubic foot = 2150.42 cubic inches.
- 1 bushel = 4 pecks = 32 quarts = 64 pints.
- 1 peck = 8 quarts = 16 pints.
- 1 quart = 2 pints.
- 1 heaped bushel =  $\frac{1}{4}$  struck bushel.
- 1 cubic foot = 0.8036 struck bushel.
- 1 British Imperial bushel = 8 Imperial gallons = 1.2837 cubic foot = 2218.19 cubic inches.

### Liquid Measure

- 1 U.S. gallon = 0.1337 cubic foot = 231 cubic inches = 4 quarts = 8 pints.
- 1 quart = 2 pints = 8 gills.
- 1 pint = 4 gills.
- 1 British Imperial gallon = 1.2003 U.S. gallon = 277.27 cubic inches.
- 1 cubic foot = 7.48 U.S. gallons.

### Circular and Angular Measure

- 60 seconds (") = 1 minute (').
- 60 minutes = 1 degree (°).
- 360 degrees = 1 circumference (C).
- 57.3 degrees = 1 radian.
- 2 $\pi$  radians = 1 circumference (C).

### Specific Gravity

The specific gravity of a substance is its weight as compared with the weight of an equal bulk of pure water. For making specific gravity determinations the temperature of the water is usually taken at 62°F. when 1 cubic foot of water weighs 62.355 lbs. Water is at its greatest density at 39.2°F. or 4° Centigrade.

### Temperature

The following equation will be found convenient for transforming temperature from one system to another: Let F = degrees Fahrenheit; C = degrees Centigrade; R = degrees Reamur.

$$\frac{F-32}{180} = \frac{C}{100} = \frac{R}{80}$$

### Avoirdupois or Commercial Weight

- 1 gross or long ton = 2240 pounds.
- 1 net or short ton = 2000 pounds.
- 1 pound = 16 ounces = 7000 grains.
- 1 ounce = 16 drams = 437.5 grains.

### Measures of Pressure

- 1 pound per square inch = 144 pounds per square foot = 0.068 atmosphere = 2.042 inches of mercury at 62 degrees F. = 27.7 inches of water at 62 degrees F. = 2.31 feet of water at 62 degrees F.
- 1 atmosphere = 30 inches of mercury at 62 degrees F. = 14.7 pounds per square inch = 2116.3 pounds per square foot = 33.95 feet of water at 62 degrees F.
- 1 foot of water at 62 degrees F. = 62.355 pounds per square foot = 0.433 pound per square inch.
- 1 inch of mercury at 62 degrees F. = 1.132 foot of water = 13.58 inches of water = 0.491 pound per square inch.
- Column of water 12 in. high, 1 in. dia. = .341 lbs.

### Cubic Measure

- 1 cubic yard = 27 cubic feet.
- 1 cubic foot = 1728 cubic inches.
- The following measures are also used for wood and masonry:
- 1 cord of wood = 4 x 4 x 8 feet = 128 cubic feet.
- 1 perch of masonry =  $16\frac{1}{2} \times 1\frac{1}{2} \times 1$  foot = 24 $\frac{3}{4}$  cubic feet.

### Shipping Measure

- For measuring entire internal capacity of a vessel: 1 register ton = 100 cubic feet.
- For measurement of cargo:
- 1 U.S. shipping ton = 40 cubic feet = 32.143 U.S. bushels = 31.16 Imperial bushels.
- British shipping ton = 42 cubic feet = 33.75 U.S. bushels = 32.72 Imperial bushels.

### Troy Weight, Used for Weighing Gold and Silver

- 1 pound = 12 ounces = 5760 grains.
- 1 ounce = 20 pennyweights = 480 grains.
- 1 pennyweight = 24 grains.
- 1 carat (used in weighing diamonds) = 3.086 grains.
- 1 grain Troy = 1 grain avoirdupois = 1 grain apothecaries' weight.

### Measure Used for Diameters and Areas of Electric Wires

- 1 circular inch = area of circle 1 inch in diameter = 0.7854 square inch.
- 1 circular inch = 1,000,000 circular mils.
- 1 square inch = 1.2732 circular inch = 1,273,239 circular mils.
- A circular mil is the area of a circle 0.001 inch in diam.

### Board Measure

- One foot board measure is a piece of wood 12 inches square by 1 inch thick, or 144 cubic inches. 1 cubic foot therefore equals 12 feet board measure.

# ENGINEERING INFORMATION

**Table 13—Decimal and Millimeter Equivalents of Fractions**

Inches		Milli- meters	Inches		Milli- meters	Inches		Milli- meters
Fractions	Decimals		Fractions	Decimals		Fractions	Decimals	
$\frac{1}{16}$	.015625	.397	$\frac{1}{32}$	.03125	.794	$\frac{1}{8}$	.125	3.175
$\frac{1}{8}$	.03125	.794	$\frac{3}{32}$	.09375	2.381	$\frac{1}{4}$	.250	6.350
$\frac{3}{16}$	.046875	1.191	$\frac{1}{2}$	.500	12.700	$\frac{3}{8}$	.375	9.525
$\frac{1}{4}$	.0625	1.588	$\frac{5}{16}$	.3125	7.938	$\frac{7}{8}$	.875	22.225
$\frac{5}{16}$	.078125	1.984	$\frac{3}{4}$	.750	19.050			
$\frac{3}{8}$	.09375	2.381						
$\frac{7}{16}$	.109375	2.778						
$\frac{1}{2}$	.125	3.175						
$\frac{9}{16}$	.140625	3.572						
$\frac{5}{8}$	.15625	3.969						
$\frac{11}{16}$	.171875	4.366						
$\frac{3}{4}$	.1875	4.763						
$\frac{7}{8}$	.203125	5.159						
$\frac{15}{16}$	.21875	5.556						
	.234375	5.953						
	.250	6.350						
	.265625	6.747						
	.28125	7.144						
	.296875	7.541						
	.3125	7.938						
	.328125	8.334						

**Table 14—Millimeter-Inch Equivalents; 1—254MM (.03937"—10.0")**

Milli- meter	Decimal	Milli- meter	Decimal	Milli- meter	Decimal	Milli- meter	Decimal	Milli- meter	Decimal
1	.03937	52	2.04724	103	4.05511	154	6.05299	205	8.07086
2	.07874	53	2.08661	104	4.09448	155	6.10236	206	8.11023
3	.11811	54	2.12598	105	4.13385	156	6.14173	207	8.14960
4	.15748	55	2.16535	106	4.17322	157	6.18110	208	8.18897
5	.19685	56	2.20472	107	4.21259	158	6.22047	209	8.22834
6	.23622	57	2.24409	108	4.25196	159	6.25984	210	8.26771
7	.27559	58	2.28346	109	4.29133	160	6.29921	211	8.30708
8	.31496	59	2.32283	110	4.33070	161	6.33858	212	8.34645
9	.35433	60	2.36220	111	4.37007	162	6.37795	213	8.38582
10	.39370	61	2.40157	112	4.40944	163	6.41732	214	8.42519
11	.43307	62	2.44094	113	4.44881	164	6.45669	215	8.46456
12	.47244	63	2.48031	114	4.48818	165	6.49606	216	8.50393
13	.51181	64	2.51968	115	4.52755	166	6.53543	217	8.54330
14	.55118	65	2.55905	116	4.56692	167	6.57480	218	8.58267
15	.59055	66	2.59842	117	4.60629	168	6.61417	219	8.62204
16	.62992	67	2.63779	118	4.64566	169	6.65354	220	8.66141
17	.66929	68	2.67716	119	4.68503	170	6.69291	221	8.70078
18	.70866	69	2.71653	120	4.72440	171	6.73228	222	8.74015
19	.74803	70	2.75590	121	4.76377	172	6.77165	223	8.77952
20	.78740	71	2.79527	122	4.80314	173	6.81102	224	8.81889
21	.82677	72	2.83464	123	4.84251	174	6.85039	225	8.85826
22	.86614	73	2.87401	124	4.88188	175	6.88976	226	8.89763
23	.90551	74	2.91338	125	4.92125	176	6.92913	227	8.93700
24	.94488	75	2.95275	126	4.96062	177	6.96850	228	8.97637
25	.98425	76	2.99212	127	5.00000	178	7.00787	229	9.01574
26	1.02362	77	3.03149	128	5.03937	179	7.04724	230	9.05511
27	1.06299	78	3.07086	129	5.07874	180	7.08661	231	9.09448
28	1.10236	79	3.11023	130	5.11811	181	7.12598	232	9.13385
29	1.14173	80	3.14960	131	5.15748	182	7.16535	233	9.17322
30	1.18110	81	3.18897	132	5.19685	183	7.20472	234	9.21259
31	1.22047	82	3.22834	133	5.23622	184	7.24409	235	9.25196
32	1.25984	83	3.26771	134	5.27559	185	7.28346	236	9.29133
33	1.29921	84	3.30708	135	5.31496	186	7.32283	237	9.33070
34	1.33858	85	3.34645	136	5.35433	187	7.36220	238	9.37007
35	1.37795	86	3.38582	137	5.39370	188	7.40157	239	9.40944
36	1.41732	87	3.42519	138	5.43307	189	7.44094	240	9.44881
37	1.45669	88	3.46456	139	5.47244	190	7.48031	241	9.48818
38	1.49606	89	3.50393	140	5.51181	191	7.51968	242	9.52755
39	1.53543	90	3.54330	141	5.55118	192	7.55905	243	9.56692
40	1.57480	91	3.58267	142	5.59055	193	7.59842	244	9.60629
41	1.61417	92	3.62204	143	5.62992	194	7.63779	245	9.64566
42	1.65354	93	3.66141	144	5.66929	195	7.67716	246	9.68503
43	1.69291	94	3.70078	145	5.70866	196	7.71653	247	9.72440
44	1.73228	95	3.74015	146	5.74803	197	7.75590	248	9.76377
45	1.77165	96	3.77952	147	5.78740	198	7.79527	249	9.80314
46	1.81102	97	3.81889	148	5.82677	199	7.83464	250	9.84251
47	1.85039	98	3.85826	149	5.86614	200	7.87401	251	9.88188
48	1.88976	99	3.89763	150	5.90551	201	7.91338	252	9.92125
49	1.92913	100	3.93700	151	5.94488	202	7.95275	253	9.96062
50	1.96850	101	3.97637	152	5.98425	203	7.99212	254	10.00000
51	2.00787	102	4.01574	153	6.02362	204	8.03149		



# ENGINEERING INFORMATION

## Metric System of Measurements

The principal units are the meter for length, the liter for capacity and the gram for weight. The following prefixes are used for sub-divisions and multiples: milli = 1/1000; centi = 1/100; deci = 1/10; deca = 10; hecto = 100; kilo = 1000.

### Measures of Length

10 millimeters (mm.)	= 1 centimeter (cm.)
10 centimeters	= 1 decimeter (dm.)
10 decimeters	= 1 meter (m.)
1000 meters	= 1 kilometer (km.)

### Measures of Weight

10 milligrams (mg.)	= 1 centigram (cg.)
10 centigrams	= 1 decigram (dg.)
10 decigrams	= 1 gram (g.)
10 grams	= 1 decagram (Dg.)
10 decagrams	= 1 hectogram (Hg.)
10 hectograms	= 1 kilogram (Kg.)
1000 kilograms	= 1 (metric) ton (T.)

Millimeters X .039370 = inches.
Meters X 39.370 = inches.
Meters X 3.2808 = feet.
Meters X 1.09361 = yards.
Kilometers X 3,280.8 = feet.
Kilometers X .62137 = Statute Miles.
Kilometers X .53959 = Nautical Miles.

### Length Conversion Constants for Metric and U.S. Units

### Surveyor's Square Measure

100 square meters (m. <sup>2</sup> )	= 1 are (ar.)
100 acres	= 1 hectare (har.)
100 hectares	= 1 sq. kilometer (Km. <sup>2</sup> )

### Square Measure

100 sq. millimeters (mm. <sup>2</sup> )	= 1 sq. centimeter (cm. <sup>2</sup> )
100 sq. centimeters	= 1 sq. decimeter (dm. <sup>2</sup> )
100 sq. decimeters	= 1 sq. meter (m. <sup>2</sup> )

### Cubic Measure

1000 cu. millimeters (mm. <sup>3</sup> )	= 1 cu. centimeter (cm. <sup>3</sup> )
1000 cu. centimeters	= 1 cu. decimeter (dm. <sup>3</sup> )
1000 cu. decimeters	= 1 cu. meter (m. <sup>3</sup> )

### Dry and Liquid Measure

10 milliliters (mL.)	= 1 centiliter (cl.)
10 centiliters	= 1 deciliter (dl.)
10 deciliters	= 1 liter (l.)
100 liters	= 1 hectoliter (Hl.)
1 liter = 1 cubic decimeter	= the volume of 1 kilogram of pure water at a temperature of 39.2 degrees F.

Inches X 25.4001 = millimeters.
Inches X .0254 = meters.
Feet X .30480 = meters.
Yards X .91440 = meters.
Feet X .0003048 = kilometers.
Statute Miles X 1.60935 = kilometers.
Nautical Miles X 1.85325 = kilometers.

### Weight Conversion Constants for Metric and U.S. Units

Grams X 981 = dynes.
Grams X 15.432 = grains.
Grams X .03527 = ounces (Awd.).
Grams X .033818 = fluid ounces (water).
Kilograms X 35.27 = ounces (Awd.).
Kilograms X 2.20462 = pounds (Awd.).
Metric Tons (1000 Kg.) X 1.10231 =
Net Ton (2000 lbs.).
Metric Tons (1000 Kg.) X .98421 =
Gross Ton (2240 lbs.).

Dynes X .0010193 = grams.
Grains X .0648 = grams.
Ounces (Awd.) X 28.35 = grams.
Fluid Ounces (Water) X 29.57 = grams.
Ounces (Awd.) X .02835 = kilograms.
Pounds (Awd.) X .45359 = kilograms.
Net Ton (2000 lbs.) X .90719 =
Metric Tons (1000 Kg.).
Gross Ton (2240 lbs.) X 1.01605 =
Metric Tons (1000 Kg.).

### Area Conversion Constants for Metric and U.S. Units

Square Millimeters X .00155 = square inches.
Square Centimeters X .155 = square inches.
Square Meters X 10.76387 = square feet.
Square Meters X 1.19599 = square yards.
Hectares X 2.47104 = acres.
Square Kilometers X 247.104 = acres.
Square Kilometers X .3861 = square miles.

Square Inches X 645.163 = square millimeters.
Square Inches X 6.45163 = square centimeters.
Square Feet X .0929 = square meters.
Square Yards X .83613 = square meters.
Acres X .40469 = hectares.
Acres X .0040469 = square kilometers.
Square Miles X 2.5899 = square kilometers.

### Volume Conversion Constants for Metric and U.S. Units

Cubic Centimeters X .033818 = fluid ounces.
Cubic Centimeters X .061023 = cubic inches.
Cubic Centimeters X .271 = fluid drams.
Liters X 61.023 = cubic inches.
Liters X 1.05668 = quarts.
Liters X 2.6417 = gallons.
Liters X .035317 = cubic feet.
Hectoliters X 26.417 = gallons.
Hectoliters X 3.5317 = cubic feet.
Hectoliters X 2.83794 = bushel (2150.42 cu. in.).
Hectoliters X .1308 = cubic yards.
Cubic Meters X 264.17 = gallons.
Cubic Meters X 35.317 = cubic feet.
Cubic Meters X 1.308 = cubic yards.

Fluid Ounces X 29.57 = cubic centimeters.
Cubic Inches X 16.387 = cubic centimeters.
Fluid Drums X 3.69 = cubic centimeters.
Cubic Inches X .016387 = liters.
Quarts X .94636 = liters.
Gallons X 3.78543 = liters.
Cubic Feet X 28.316 = liters.
Gallons X .0378543 = hectoliters.
Cubic Feet X .28316 = hectoliters.
Bushels (2150.42 cu. in.) X .352379 = hectoliters.
Cubic Yards X 7.645 = hectoliters.
Gallons X .00378543 = cubic meters.
Cubic Feet X .028316 = cubic meters.
Cubic Yards X .7645 = cubic meters.

### Power and Heat Conversion Constants for Metric and U.S. Units

Calorie X 0.003968 = B.T.U.
Joules X .7373 = foot pounds.
Kilogram-meters X 7.233 = foot pounds.
Cheval Vapeur X .9863 = Horsepower.
Kilowatts X 1.34 = Horsepower.
Kilowatt Hours X 3415 = B.T.U.
(Degrees Cent. X 1.8) + 32 = degrees Fahr.
(Degrees Reamur X 2.25) + 32 = degrees Fahr.

B.T.U. X 252 = calories.
Foot Pounds X 1.3563 = joules.
Foot Pounds X 1.3825 = kilogram-meters.
Horsepower X 1.014 = Cheval Vapeur.
Horsepower X .746 = kilowatts.
B.T.U. X .00029282 = kilowatt hours.
(Degrees Fahr. - 32) X .555 = degrees Cent.
(Degrees Fahr. - 32) X .444 = degrees Reamur.

## ENGINEERING INFORMATION

### Flywheel Formulas

**Flywheels** are used on some machines, for example, air compressors, to even out load pulsations. The following formulas are useful in designing entire flywheels

and flywheel rims. A V-belt sheave may also be used as a flywheel eliminating the need for a separate flywheel in the system—See pages 30-29 and 33-33.

#### Formulas for Entire Flywheel

Kinetic energy of rotation of a flywheel (foot pounds) = .0001705  $N_2(WR^2)^*$

Torque to accelerate or decelerate a flywheel uniformly (pound inches) =  $\frac{.03908(N_2 - N_1)(WR^2)^*}{t}$

where  $N_2$  = final R.P.M. and  $N_1$  = initial R.P.M.  
Velocity at outside diameter (feet per minute) = 0.2618 ND.

W = weight (pounds).  
R = radius of gyration (feet).  
N = speed (R.P.M.)  
t = time to change from  $N_1$  to  $N_2$  (seconds).  
F = face of rim (inches).  
D = outside diameter of rim (inches).  
d = inside diameter of rim (inches).  
K = weight per cubic inch of material (pounds).

\* $WR^2$  = flywheel effect (pounds X feet<sup>2</sup>). See table to the right for  $WR^2$  of rims. Ordinarily the  $WR^2$  of the rim only is considered. In unusual instances the relatively small  $WR^2$  values of the hub and arms or web can be added directly to the  $WR^2$  of the rim if desired. To find the  $WR^2$  of a hub or web use the  $WR^2$  formula for rims, substituting the hub or web outside diameter, inside diameter, and width for D, d and F respectively. When arms are used instead of a web an approximate  $WR^2$  value of the arms is the total weight of the arms in pounds times the square of the radius in feet from the shaft center line to the mid point of the arms between hub and rim.

**Table 15—Formulas for Flywheel Rims**

Property	Cast Iron Rim (Based on .26 lbs. per cu. in.)	Steel Rim (Based on .283 lbs. per cu. in.)	Rim of any material weighing K pounds per cubic inch
Volume (Cubic Inches)	$.7854F(D^2 - d^2)$	$.7854F(D^2 - d^2)$	$.7854FK(D^2 - d^2)$
W Weight (Pounds)	$.2042F(D^2 - d^2)$	$.2223F(D^2 - d^2)$	$.7854FK(D^2 - d^2)$
R Radius of Gyration (Feet)	$\sqrt{\frac{.8681(D^2 + d^2)}{1000}}$	$\sqrt{\frac{.8681(D^2 + d^2)}{1000}}$	$\sqrt{\frac{.8681(D^2 + d^2)}{1000}}$
$WR^2$ Wt. X Sq. of Radius of Gyration (Lbs. X Ft. <sup>2</sup> )	$.1773F(D^4 - d^4)$	$.1929F(D^4 - d^4)$	$.6818FK(D^4 - d^4)$
Tensile Load in Rim (Lbs.)	$.3078FN^2(D^3 - d^3)$	$.3350FN^2(D^3 - d^3)$	$1.184KFN^2(D^3 - d^3)$

▲ Centrifugal force causes this tensile load at each and every section of the rim. Hence, on rims split into two or more sections the fastening at each joint should be designed to take the full load as calculated from the formula here given.

### Centrifugal Force

R = Distance from the axis of rotation to the center of gravity of the body (feet).

N = Revolutions per minute.

v = Velocity of the center of gravity of the body (feet per second).

g = Acceleration due to gravity (32.16 commonly).

$$F = \frac{Wv^2}{gR} = \frac{WRN^2}{2933} = .000341 WRN^2$$

F = Centrifugal force tending to move the body outward from the axis of rotation (pounds).

W = Weight of body (pounds).

### Engineering Formulas and Constants†

1 HP = 33,000 Foot-pounds of work per minute.

1 HP = .746 K.W. = K.W. ÷ 1.341.

1 HP = 2547 B.T.U. per hour.

1 B.T.U. = Heat required to raise 1 lb. water 1°F.

1 B.T.U. = 777.6 Foot-pounds work.

1 Kilowatt Hour = 3415 B.T.U.

Heat Value of Carbon = 14,600 B.T.U. per pound.

Latent Heat of Fusion of Ice = 143.15 B.T.U. per pound.

Latent Heat of Evaporation of Water at 212°F. = 970.4 B.T.U. per pound.

Total Heat of Saturated Steam at atmospheric pressure = 1,150.4 B.T.U. per pound.

1 Ton of Refrigeration = 288,000 B.T.U. per 24 hours.

g = Acceleration of Gravity (commonly taken as 32.16 feet per second per second).

1 Radian = 57.296 degrees.

1 Meter = 100 cm. = 39.37 inches.

1 Kilometer = 62137 miles.

1 Gallon = 231 cubic inches.

1 Barrel = 31.5 gallons.

Atmospheric Pressure = 14.7 pounds per sq. in. = 29.92 inches mercury at 32°F.

1 Lb. per Sq. In. Pressure = 2.3095 feet fresh water at 62°F.  
= 2.0355 inches mercury at 32°F. = 2.0416 inches mercury at 62°F.

Water Pressure (pounds per sq. in.) = .433 X height of water in feet (Fresh water at 62°F.).

Weight of 1 cu. ft. Fresh Water = 62.355 lbs. at 62°F. = 59.76 lbs. at 212°F.

Weight of 1 cu. ft. Air at 14.7 lbs. per sq. in. Pressure = .07608 lbs. at 62°F. = .08073 lbs. at 32°F.

† Also look in the General Index under Weights, Measures, or the subject material required.

**Table 16—Roman Numerals**

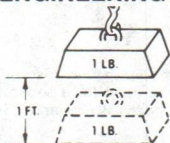
No.	Roman Numeral	No.	Roman Numeral	No.	Roman Numeral	No.	Roman Numeral	No.	Roman Numeral
1	I	9	IX	17	XVII	70	LXX	600	DC
2	II	10	X	18	XVIII	80	LXXX	700	DCC
3	III	11	XI	19	XIX	90	XC	800	DCCC
4	IV	12	XII	20	XX	100	C	900	CM
5	V	13	XIII	30	XXX	200	CC	1000	M
6	VI	14	XIV	40	XL	300	CCC	1500	MD
7	VII	15	XV	50	L	400	CD	1900	MCM
8	VIII	16	XVI	60	LX	500	D	2000	MM

Example: 1974 = MCMLXXIV

Note: A dash over a numeral multiplies the value by 1000. (10,000 =  $\overline{X}$ ; 1,000,000 =  $\overline{M}$ ).



# ENGINEERING INFORMATION — Torque and Horsepower Equivalents



A foot-pound is the amount of energy expended in lifting a one-pound mass a distance of one foot against the pull of gravity.

## FOOT-POUNDS INDICATE ENERGY

$$\begin{aligned}\text{Torque (in Pound-Inches)} &= \frac{63,025 \times \text{HP}}{\text{RPM}} \\ &= \text{Force} \times \text{Lever Arm (in Inches)} \\ \text{Torque (in Pound-Feet)} &= \frac{5,252 \times \text{HP}}{\text{RPM}} \\ &= \text{Force} \times \text{Lever Arm (in Feet)}\end{aligned}$$

Force = Working Load in Pounds.

FPM = Feet Per Minute.

RPM = Revolutions Per Minute.

Lever Arm = Distance from the Force to the center of rotation in Inches or Feet.

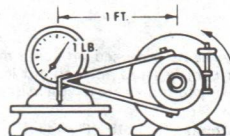
### How to Read Torque Tables

The tables on the following pages give the Torque in Pound-Inches for ranges of HP and RPM values.

For fractional HP values move the decimal points to the left in HP and Torque values.

## TORQUE

It is: a turning moment or twist-effort.  
Is it expressed in foot-pounds? or pound-feet?



A pound-foot is the moment created by a force of one pound applied to the end of a lever arm one foot long.

## POUND-FEET INDICATE TORQUE

### Example:—

$$\begin{aligned}25 \text{ HP at } 150 \text{ RPM} &= 10504 \text{ Pound-Inches Torque} \\ 2.5 \text{ HP at } 150 \text{ RPM} &= 1050.4 \text{ Pound-Inches Torque}\end{aligned}$$

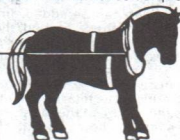
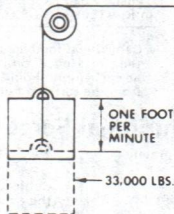
For other values of RPM move decimal point in RPM values to the left or right as desired, and in Torque values move to the right or left (opposite way) the same number of places.

### Example:—

$$\begin{aligned}25 \text{ HP at } 150 \text{ RPM} &= 10504 \text{ Pound-Inches Torque} \\ 25 \text{ HP at } 1.50 \text{ RPM} &= 1050400 \text{ Pound-Inches Torque} \\ 2.5 \text{ HP at } 1.50 \text{ RPM} &= 105040 \text{ Pound-Inches Torque}\end{aligned}$$

## HORSEPOWER

**Common Unit of Mechanical power. (HP)**  
**One HP is the rate of work required to raise 33,000 pounds one foot in one minute.**



$$\begin{aligned}\text{HP} &= \frac{\text{Force} \times \text{FPM}}{33,000} \\ \text{HP} &= \frac{\text{Torque (in Pound-Inches)} \times \text{RPM}}{63,025} \\ \text{HP} &= \frac{\text{Torque (in Pound-Feet)} \times \text{RPM}}{5,252}\end{aligned}$$

## Overhung Loads

An overhung load is a bending force imposed on a shaft due to the torque transmitted by V-drives, chain drives and other power transmission devices, other than flexible couplings.

Most motor and reducer manufacturers list the maximum values allowable for overhung loads. It is desirable that these figures be compared with the load actually imposed by the connected drive.

Overhung loads may be calculated as follows:

$$\text{O.H.L.} = \frac{63,000 \times \text{HP} \times \text{F}}{\text{N} \times \text{R}}$$

Where HP = Transmitted hp  $\times$  service factor.

N = RPM of shaft.

R = Radius of sprocket, pulley, etc.

F = Factor.

Weights of the drive components are usually negligible. The formula is based on the assumption that the load is applied at a point equal to one shaft diameter from the bearing face.

Factor F depends on the type of drive used:

- 1.00 for single chain drives.
- 1.10 for TIMING belt drives.
- F = 1.25 for spur or helical gear or double chain drives.
- 1.50 for V-belt drives.
- 2.50 for flat belt drives.

**Example:** Find the overhung load imposed on a reducer by a double chain drive transmitting 7 hp @ 30 RPM. The pitch diameter of the sprocket is 10"; service factor is 1.3.

**Solution:**

$$\text{O.H.L.} = \frac{(63,000)(7 \times 1.3)(1.25)}{(30)(5)} = 4,780 \text{ lbs.}$$

## Mathematical Equations

To find circumference of a circle, multiply diameter by 3.1416.

To find diameter of a circle, multiply circumference by .31831.

To find area of a circle, multiply square of diameter by .7854.

To find area of a rectangle, multiply length by breadth.

To find area of a triangle, multiply base by  $\frac{1}{2}$  perpendicular height.

To find area of ellipse, multiply product of both diameters by .7854.

To find area of parallelogram, multiply base by altitude.

To find side of an inscribed square, multiply circumference by 0.7071 or multiply circumference by 4.4428.

To find side of inscribed cube, multiply radius of sphere by 1.1547.

To find side of an equal square, multiply diameter by .8662.

To find the surface of a sphere, square the diameter and multiply by 3.1416.

To find the volume of a sphere, cube the diameter and multiply by .5236.

A side of a square multiplied by 1.4142 equals diameter of its circumscribing circle.

A side of a square multiplied by 4.4428 equals circumference of its circumscribing circle.

A side of a square multiplied by 1.128 equals diameter of an equal circle.

A side of a square multiplied by 3.547 equals circumference of an equal circle.

To find gallon capacity of tanks (given dimensions of a cylinder in inches), square the diameter of the cylinder,

multiply by the length and by .0034.

# ENGINEERING INFORMATION

## Torque in Pound-inches for Horsepower at Different Revolutions Per Minute

Table 17—Torque for 1-50 hp @ 100-260 RPM

HP	Revolutions per Minute																	
	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	
1	630	572	525	484	450	420	393	370	350	331	315	300	286	274	262	252	242	
2	1260	1145	1050	969	900	840	787	741	700	663	630	600	572	548	525	504	484	
3	1890	1718	1575	1454	1350	1260	1181	1112	1050	995	945	900	859	822	787	756	727	
4	2521	2291	2100	1939	1800	1680	1575	1482	1400	1326	1260	1200	1145	1096	1050	1008	969	
5	3151	2864	2626	2424	2250	2100	1969	1853	1750	1658	1575	1500	1432	1370	1313	1260	1212	
6	3781	3437	3151	2908	2701	2521	2363	2224	2100	1990	1890	1800	1718	1644	1575	1512	1454	
7	4411	4010	3676	3393	3151	2941	2757	2595	2450	2321	2205	2100	2005	1918	1838	1764	1696	
8	5042	4583	4201	3878	3601	3361	3151	2965	2801	2653	2521	2400	2291	2192	2100	2016	1939	
9	5672	5156	4726	4363	4051	3781	3545	3336	3151	2985	2836	2701	2578	2466	2363	2268	2181	
10	6302	5729	5252	4848	4501	4201	3939	3707	3501	3317	3151	3001	2864	2740	2626	2521	2424	
11	6932	6302	5777	5332	4951	4621	4332	4078	3851	3648	3466	3301	3151	3014	2888	2773	2666	
12	7563	6875	6302	5817	5402	5042	4726	4448	4201	3980	3781	3601	3437	3288	3151	3025	2908	
13	8193	7448	6827	6302	5852	5462	5120	4819	4551	4312	4096	3901	3724	3562	3413	3277	3151	
14	8823	8021	7352	6787	6302	5882	5514	5190	4901	4643	4411	4201	4010	3836	3676	3529	3393	
15	9453	8594	7878	7272	6752	6302	5908	5561	5252	4975	4726	4501	4297	4110	3939	3781	3636	
16	10084	9167	8403	7756	7202	6722	6302	5931	5602	5307	5042	4801	4583	4384	4201	4033	3878	
17	10714	9740	8928	8241	7653	7142	6696	6302	5952	5639	5357	5102	4870	4658	4464	4285	4120	
18	11344	10313	9453	8726	8103	7563	7090	6673	6302	5970	5672	5402	5156	4932	4726	4537	4363	
19	11974	10886	9979	9211	8553	7983	7484	7044	6652	6302	5987	5702	5443	5206	4989	4789	4605	
20	12605	11459	10504	9696	9003	8403	7878	7414	7002	6634	6302	6002	5729	5480	5252	5042	4848	
21	13235	12032	11029	10181	9453	8823	8272	7785	7352	6965	6617	6302	6016	5754	5514	5294	5090	
22	13865	12605	11594	10665	9903	9243	8665	8156	7703	7297	6932	6602	6302	6028	5777	5546	5332	
23	14495	13178	12079	11150	10354	9663	9059	8526	8053	7629	7247	6902	6588	6302	6039	5798	5575	
24	15126	13750	12605	11635	10804	10084	9453	8897	8403	7961	7563	7202	6875	6576	6302	6050	5817	
25	15756	14323	13130	12120	11254	10504	9847	9268	8753	8292	7878	7503	7161	6850	6565	6302	6060	
26	16386	14896	13655	12605	11704	10924	10241	9639	9103	8624	8193	7803	7448	7124	6827	6554	6302	
27	17016	15469	14180	13089	12154	11344	10635	10009	9453	8956	8508	8103	7734	7398	7090	6806	6544	
28	17647	16042	14705	13574	12605	11764	11029	10380	9803	9287	8823	8403	8021	7672	7352	7058	6787	
29	18277	16615	15231	14059	13055	12184	11423	10751	10154	9619	9138	8703	8307	7946	7615	7310	7029	
30	18907	17188	15756	14544	13505	12605	11817	11122	10504	9951	9453	9003	8594	8220	7878	7563	7272	
31	19537	17761	16281	15029	13955	13025	12211	11492	10854	10283	9768	9303	8880	8494	8140	7815	7514	
32	20168	18334	16806	15513	14405	13445	12605	11863	11204	10614	10084	9603	9167	8768	8403	8067	7756	
33	20798	18907	17331	15998	14855	13865	12998	12234	11554	10946	10399	9903	9453	9042	8665	8319	7999	
34	21428	19480	17857	16483	15306	14285	13392	12605	11904	11278	10714	10204	9740	9316	8928	8571	8241	
35	22058	20053	18382	16968	15756	14705	13786	12975	12254	11609	11029	10504	10026	9590	9191	8823	8484	
36	22689	20626	18907	17453	16206	15126	14180	13346	12605	11941	11344	10804	10313	9864	9453	9075	8726	
37	23319	21199	19432	17937	16656	15546	14574	13717	12955	12273	11659	11104	10599	10138	9716	9327	8968	
38	23949	21772	19958	18422	17106	15966	14968	14088	13305	12605	11974	11404	10886	10412	9978	9579	9211	
39	24579	22345	20483	18907	17557	16386	15362	14458	13655	12936	12289	11704	11172	10686	10241	9831	9453	
40	25210	22918	21008	19392	18007	16806	15756	14829	14005	13268	12605	12004	11459	10960	10504	10084	9696	
41	25840	23491	21533	19877	18457	17226	16150	15200	14355	13600	12920	12304	11745	11234	10766	10336	9938	
42	26470	24064	22058	20362	18907	17647	16544	15570	14705	13931	13235	12605	12032	11508	11029	10583	10181	
43	27100	24637	22584	20846	19357	18067	16938	15941	15056	14263	13550	12905	12318	11782	11292	10840	10423	
44	27731	25210	23109	21331	19807	18487	17331	16312	15406	14595	13865	13205	12605	12057	11554	11092	10665	
45	28361	25783	23634	21816	20258	18907	17725	16683	15756	14927	14180	13505	12891	12331	11817	11344	10908	
46	28991	26356	24159	22301	20708	19327	18119	17053	16106	15258	14495	13805	13177	12605	12079	11596	11150	
47	29621	26928	24684	22786	21158	19747	18513	17424	16456	15590	14810	14105	13464	12879	12342	11848	11393	
48	30252	27501	25210	23270	21608	20168	18907	17795	16806	15922	15126	14405	13750	13153	12605	12100	11635	
49	30882	28074	25735	23755	22058	20588	19301	18166	17156	16253	15441	14705	14037	13427	12867	12352	11877	
50	31512	28647	26260	24240	22509	21008	19695	18536	17507	16585	15756	15006	14323	13701	13130	12605	12120	



# ENGINEERING INFORMATION

## Torque in Pound-Inches for Horsepower at Different Revolutions Per Minute (Cont.)

**Table 18—Torque for 1-50 hp @ 270-1000 RPM**

HP	Revolutions per Minute															
	270	280	290	300	350	400	450	500	550	600	650	700	750	800	850	900
1	233	225	217	210	180	157	140	126	114	105	96	90	84	78	74	66
2	466	450	434	420	360	315	280	252	229	210	193	180	168	157	148	140
3	700	675	651	630	540	472	420	378	343	315	290	270	252	236	222	210
4	933	900	869	840	720	630	560	504	458	420	387	360	336	315	296	280
5	1167	1125	1086	1050	900	787	700	630	572	525	484	450	420	393	370	351
6	1400	1350	1303	1260	1080	945	840	756	687	630	581	540	504	472	444	420
7	1633	1575	1521	1470	1260	1102	980	882	802	735	678	630	588	551	519	490
8	1867	1800	1738	1680	1440	1260	1120	1008	916	840	775	720	672	630	593	560
9	2100	2025	1955	1890	1620	1418	1260	1134	1031	945	872	810	756	709	667	630
10	2334	2250	2173	2100	1800	1575	1400	1260	1145	1050	969	900	840	787	741	700
11	2567	2475	2390	2310	1980	1733	1540	1386	1260	1155	1066	990	924	866	815	770
12	2801	2701	2607	2521	2160	1890	1680	1512	1375	1260	1163	1080	1008	945	889	840
13	3034	2926	2825	2731	2340	2048	1820	1638	1489	1365	1260	1170	1092	1024	963	910
14	3267	3151	3042	2941	2521	2205	1960	1764	1604	1470	1357	1260	1176	1102	1038	980
15	3501	3376	3259	3151	2701	2363	2100	1890	1718	1575	1454	1350	1260	1181	1112	1050
16	3734	3601	3477	3361	2881	2521	2240	2016	1833	1680	1551	1440	1344	1260	1186	1120
17	3968	3826	3694	3571	3061	2678	2380	2142	1948	1785	1648	1530	1428	1339	1260	1190
18	4201	4051	3911	3781	3241	2836	2521	2268	2062	1890	1745	1620	1512	1418	1334	1260
19	4435	4276	4129	3991	3421	2993	2661	2394	2177	1995	1842	1710	1596	1496	1408	1330
20	4668	4501	4346	4201	3601	3151	2801	2521	2291	2100	1939	1800	1680	1575	1482	1400
21	4901	4726	4563	4411	3781	3308	2941	2647	2406	2205	2036	1890	1764	1654	1557	1470
22	5135	4951	4781	4621	3961	3466	3081	2773	2521	2310	2133	1980	1848	1733	1631	1540
23	5368	5177	4998	4841	4141	3623	3221	2899	2635	2415	2230	2070	1932	1811	1705	1610
24	5602	5402	5215	5042	4321	3781	3361	3025	2750	2521	2327	2160	2016	1890	1779	1680
25	5835	5627	5433	5252	4501	3939	3501	3151	2864	2626	2424	2250	2100	1969	1853	1750
26	6069	5852	5650	5462	4681	4096	3641	3277	2979	2731	2521	2340	2184	2048	1927	1820
27	6302	6077	5867	5672	4861	4254	3781	3403	3093	2836	2617	2430	2268	2127	2001	1890
28	6535	6302	6085	5882	5042	4411	3921	3529	3208	2941	2714	2521	2352	2205	2076	1960
29	6769	6527	6302	6092	5222	4569	4061	3655	3323	3046	2811	2611	2436	2284	2150	2030
30	7002	6752	6519	6302	5402	4726	4201	3781	3437	3151	2908	2701	2520	2363	2224	2100
31	7236	6977	6737	6512	5582	4884	4341	3907	3552	3256	3005	2791	2605	2442	2298	2170
32	7469	7202	6954	6722	5762	5042	4481	4033	3666	3361	3102	2881	2689	2520	2372	2240
33	7703	7427	7171	6932	5942	5199	4621	4159	3781	3466	3199	2971	2773	2599	2446	2310
34	7936	7653	7389	7142	6122	5357	4761	4285	3896	3571	3296	3061	2857	2678	2520	2380
35	8169	7878	7606	7352	6302	5514	4901	4411	4010	3676	3393	3151	2941	2757	2595	2450
36	8403	8103	7823	7563	6482	5672	5042	4537	4125	3781	3490	3241	3025	2836	2669	2521
37	8636	8328	8041	7773	6662	5829	5187	4663	4239	3886	3587	3331	3109	2913	2743	2591
38	8870	8553	8258	7983	6842	5987	5322	4789	4354	3991	3684	3421	3193	2993	2817	2661
39	9103	8778	8475	8193	7022	6144	5462	4915	4469	4096	3781	3511	3277	3072	2891	2731
40	9337	9003	8693	8403	7202	6302	5602	5042	4583	4201	3878	3601	3361	3151	2965	2801
41	9570	9228	8910	8613	7382	6460	5742	5168	4698	4306	3975	3691	3445	3230	3040	2871
42	9803	9453	9127	8823	7563	6617	5882	5294	4812	4411	4072	3781	3529	3308	3114	2941
43	10037	9678	9345	9033	7743	6775	6022	5420	4927	4516	4169	3871	3613	3387	3188	3011
44	10270	9903	9562	9243	7923	6932	6162	5546	5042	4621	4266	3961	3697	3466	3262	3081
45	10504	10129	9779	9453	8103	7090	6302	5672	5156	4726	4363	4051	3781	3545	3336	3151
46	10737	10354	9997	9663	8283	7247	6442	5798	5271	4831	4460	4141	3865	3623	3410	3221
47	10971	10579	10214	9873	8463	7405	6582	5924	5385	4936	4557	4231	3949	3702	3484	3291
48	11204	10804	10431	10084	8643	7563	6722	6050	5500	5042	4654	4321	4033	3781	3559	3361
49	11437	11029	10649	10294	8823	7720	6862	6176	5614	5147	4751	4411	4117	3860	3633	3431
50	11671	11254	10866	10504	9003	7878	7002	6302	5729	5252	4848	4501	4201	3939	3707	3501

# ENGINEERING INFORMATION

## Torque in Pound-Inches for Horsepower at Different Revolutions Per Minute (Cont.)

Table 19—Torque for 51-100 hp @ 100-260 RPM

HP	Revolutions per Minute																
	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260
51	32142	29220	26785	24725	22959	21428	20089	18907	17857	16917	16071	15306	14610	13975	13392	12857	12362
52	32773	29793	27310	25210	23409	21848	20483	19278	18207	17249	16386	15606	14896	14245	13655	13109	12605
53	33403	30366	27836	25694	23859	22268	20877	19649	18557	17580	16701	15906	15183	14523	13918	13361	12847
54	34033	30939	28361	26179	24309	22689	21271	20019	18907	17912	17016	16206	15469	14797	14180	13613	13089
55	34663	31512	28886	26664	24759	23109	21664	20390	19257	18244	17331	16506	15756	15071	14443	13865	13332
56	35294	32085	29411	27149	25210	23529	22058	20761	19607	18575	17647	16806	16042	15345	14705	14117	13574
57	35924	32658	29937	27634	25660	23949	22452	21132	19957	18907	17962	17106	16329	15619	14968	14369	13817
58	36554	33231	30462	28118	26110	24369	22846	21502	20308	19239	18277	17406	16615	15893	15231	14621	14059
59	37184	33804	30987	28603	26560	24789	23240	21873	20658	19571	18592	17707	16902	16167	15493	14873	14301
60	37815	34377	31512	29088	27010	25210	23634	22244	21008	19902	18907	18007	17188	16441	15756	15126	14544
61	38445	34950	32037	29573	27461	25630	24028	22614	21358	20234	19222	18307	17475	16715	16018	15378	14786
62	39075	35523	32563	30058	27911	26050	24422	22985	21708	20566	19537	18607	17761	16989	16281	15630	15029
63	39705	36096	33088	30543	28361	26470	24816	23356	22058	20897	19852	18907	18048	17263	16544	15882	15271
64	40336	36669	33613	31027	28811	26890	25210	23727	22408	21229	20168	19207	18334	17537	16806	16134	15513
65	40966	37242	34138	31512	29261	27310	25604	24097	22759	21561	20483	19507	18621	17811	17069	16386	15756
66	41596	37815	34663	31997	29711	27731	25997	24468	23109	21892	20798	19807	18907	18085	17331	16638	15998
67	42226	38388	35189	32482	30162	28151	26391	24839	23459	22224	21113	20108	19194	18359	17594	16890	16241
68	42857	38961	35714	32967	30612	28571	26785	25210	23809	22556	21428	20408	19480	18633	17857	17142	16483
69	43487	39534	36239	33451	31062	28991	27179	25580	24159	22888	21743	20708	19766	18907	18119	17394	16725
70	44117	40106	36764	33936	31512	29491	27573	25951	24509	23219	22058	21008	20053	19181	18382	17647	16968
71	44747	40679	37289	34421	31962	29831	27967	26322	24859	23551	22373	21308	20339	19455	18644	17899	17210
72	45378	41252	37815	34906	32413	30252	28361	26693	25210	23883	22689	21608	20626	19729	18907	18151	17453
73	46008	41825	38340	35391	32863	30672	28755	27063	25560	24214	23004	21908	20912	20003	19170	18403	17695
74	46638	42398	38865	35875	33313	31092	29149	27434	25910	24546	23319	22208	21199	20277	19432	18655	17937
75	47268	42971	39390	36360	33763	31512	29543	27805	26260	24878	23634	22509	21485	20551	19695	18907	18180
76	47899	43544	39916	36845	34213	31932	29937	28176	26610	25210	23949	22809	21772	20825	19957	19159	18422
77	48529	44117	40441	37330	34663	32353	30330	28546	26960	25541	24264	23109	22058	21099	20220	19411	18665
78	49159	44690	40966	37815	35114	32773	30724	28917	27310	25873	24579	23409	22345	21373	20483	19663	18907
79	49789	45263	41491	38299	35564	33193	31118	29288	27661	26205	24894	23709	22631	21647	20745	19915	19149
80	50420	45836	42016	38784	36014	33613	31512	29658	28011	26536	25210	24009	22918	21921	21008	20168	19392
81	51050	46409	42542	39269	36464	34033	31906	30029	28361	26868	25525	24309	23204	22195	21271	20420	19634
82	51680	46982	43067	39754	36914	34453	32300	30400	28711	27200	25840	24609	23491	22469	21533	20672	19877
83	52310	47555	43592	40239	37365	34874	32694	30771	29061	27532	26155	24909	23777	22743	21796	20924	20119
84	52941	48128	44117	40724	37815	35294	33088	31141	29411	27863	26470	25210	24064	23017	22058	21176	20362
85	53571	48701	44642	41208	38265	35714	33482	31512	29761	28195	26785	25510	24350	23291	22321	21428	20604
86	54201	49274	45168	41693	38715	36134	33876	31883	30112	28527	27100	25810	24637	23565	22584	21680	20846
87	54831	49847	45693	42178	39165	36554	34269	32254	30462	28858	27415	26110	24923	23840	22846	21932	21089
88	55462	50420	46218	42663	39615	36974	34663	32624	30812	29190	27731	26410	25210	24114	23109	22184	21331
89	56092	50993	46743	43148	40066	37395	35057	32995	31162	29522	28046	26710	25496	24388	23371	22436	21574
90	56722	51566	47268	43632	40516	37815	35451	33366	31512	29854	28361	27010	25783	24662	23634	22689	21816
91	57352	52139	47794	44117	40966	38235	35845	33737	31862	30185	28676	27310	26069	24936	23897	22941	22058
92	57983	52712	48319	44602	41416	38655	36239	34107	32212	30517	28991	27611	26355	25210	24159	23193	22301
93	58613	53285	48844	45087	41866	39075	36633	34478	32563	30849	29306	27911	26642	25484	24422	23445	22543
94	59243	53857	49369	45572	42317	39495	37027	34849	32913	31180	29621	28211	26928	25758	24684	23697	22786
95	59873	54430	49895	46056	42767	39916	37421	35220	33263	31512	29936	28511	27215	26032	24947	23949	23028
96	60504	55003	50420	46541	43217	40336	37815	35590	33613	31844	30252	28811	27501	26306	25210	24201	23270
97	61134	55576	50945	47026	43667	40756	38209	35961	33963	32176	30567	29111	27788	26580	25472	24453	23513
98	61764	56149	51470	47511	44117	41176	38602	36332	34313	32507	30882	29411	28074	26854	25735	24705	23755
99	62394	56722	51995	47996	44567	41596	38996	36702	34663	32839	31197	29711	28361	27128	25997	24957	23998
100	63025	57295	52521	48481	45018	42016	39390	37073	35014	33171	31512	30012	28647	27402	26260	25210	24240



# ENGINEERING INFORMATION

## Torque in Pound-Inches for Horsepower at Different Revolutions Per Minute (Cont.)

Table 20—Torque for 51-100 hp @ 270-1000 RPM

HP	Revolutions per Minute																	
	270	280	290	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
51	11904	11479	11083	10714	9183	8035	7141	6428	5844	5357	4945	4591	4285	4017	3781	3571	3383	3214
52	12138	11704	11301	10924	9363	8193	7282	6554	5958	5462	5042	4681	4369	4096	3855	3641	3449	3277
53	12371	11929	11518	11134	9543	8350	7422	6680	6073	5567	5138	4771	4453	4175	3929	3711	3516	3340
54	12605	12154	11735	11344	9723	8508	7563	6806	6187	5672	5235	4861	4537	4254	4003	3781	3582	3403
55	12838	12379	11953	11554	9903	8665	7703	6932	6302	5777	5332	4951	4621	4332	4078	3851	3648	3466
56	13071	12605	12170	11764	10084	8823	7843	7058	6417	5882	5429	5042	4705	4411	4152	3921	3715	3529
57	13305	12830	12387	11974	10264	8981	7983	7184	6531	5987	5526	5132	4789	4490	4226	3991	3781	3592
58	13538	13055	12605	12184	10444	9138	8123	7310	6646	6092	5623	5222	4873	4569	4300	4061	3847	3655
59	13772	13280	12822	12394	10624	9296	8263	7436	6760	6197	5720	5312	4957	4648	4374	4131	3914	3718
60	14005	13505	13039	12605	10804	9453	8403	7563	6875	6302	5817	5402	5041	4726	4448	4201	3980	3781
61	14239	13730	13257	12815	10984	9611	8543	7689	6990	6407	5914	5492	5126	4805	4522	4271	4046	3844
62	14472	13955	13474	13025	11164	9768	8683	7815	7104	6512	6011	5582	5210	4884	4597	4341	4113	3907
63	14705	14180	13691	13235	11344	9926	8823	7941	7219	6617	6108	5672	5294	4963	4671	4411	4179	3970
64	14939	14405	13908	13445	11524	10084	8963	8067	7333	6722	6205	5762	5378	5041	4745	4481	4245	4033
65	15172	14630	14126	13655	11704	10241	9103	8193	7448	6827	6302	5852	5462	5120	4819	4551	4312	4096
66	15406	14855	14343	13865	11884	10399	9243	8319	7563	6932	6399	5942	5546	5199	4893	4621	4378	4159
67	15639	15081	14560	14075	12064	10556	9383	8445	7677	7037	6496	6032	5630	5278	4967	4691	4444	4222
68	15873	15306	14778	14285	12244	10714	9523	8571	7792	7142	6593	6122	5714	5357	5041	4761	4511	4285
69	16106	15531	14995	14495	12424	10871	9663	8697	7906	7247	6690	6212	5798	5435	5116	4831	4577	4348
70	16339	15756	15212	14705	12605	11029	9803	8823	8021	7352	6787	6302	5882	5514	5190	4901	4643	4411
71	16573	15981	15430	14915	12785	11186	9943	8949	8135	7457	6884	6392	5966	5593	5264	4971	4710	4474
72	16806	16206	15647	15126	12965	11344	10084	9075	8250	7563	6981	6482	6050	5672	5338	5042	4776	4537
73	17040	16431	15864	15336	13145	11502	10224	9201	8365	7668	7078	6572	6134	5751	5412	5112	4842	4600
74	17273	16656	16082	15546	13325	11659	10364	9327	8479	7773	7175	6662	6218	5829	5486	5182	4909	4663
75	17507	16881	16299	15756	13505	11817	10504	9453	8594	7878	7272	6752	6302	5908	5561	5252	4975	4726
76	17740	17106	16516	15966	13685	11974	10644	9579	8708	7983	7369	6842	6386	5987	5635	5322	5041	4789
77	17973	17331	16734	16176	13865	12132	10784	9705	8823	8088	7466	6932	6470	6066	5709	5392	5108	4852
78	18207	17557	16951	16386	14045	12289	10924	9831	8938	8193	7563	7022	6554	6144	5783	5462	5174	4915
79	18440	17782	17168	16596	14225	12447	11064	9957	9052	8298	7659	7112	6638	6223	5857	5532	5241	4978
80	18674	18007	17386	16806	14405	12605	11204	10084	9167	8403	7756	7202	6722	6302	5931	5602	5307	5042
81	18907	18232	17603	17016	14585	12762	11344	10210	9281	8508	7853	7292	6806	6381	6005	5672	5373	5105
82	19141	18457	17820	17226	14765	12920	11484	10336	9396	8613	7950	7382	6890	6460	6080	5742	5440	5168
83	19374	18682	18038	17436	14945	13077	11624	10462	9511	8718	8047	7472	6974	6538	6154	5812	5506	5231
84	19607	18907	18255	17647	15126	13235	11764	10588	9625	8823	8144	7563	7058	6617	6228	5882	5572	5294
85	19841	19132	18472	17857	15306	13392	11904	10714	9740	8928	8241	7653	7142	6696	6302	5952	5639	5357
86	20074	19357	18690	18067	15486	13550	12044	10840	9854	9033	8338	7743	7226	6775	6376	6022	5705	5420
87	20308	19582	18907	18277	15666	13707	12184	10966	9969	9138	8435	7833	7310	6853	6450	6092	5771	5483
88	20541	19807	19124	18487	15846	13865	12324	11092	10084	9243	8532	7923	7394	6932	6524	6162	5838	5546
89	20775	20033	19342	18697	16026	14023	12464	11218	10198	9348	8629	8013	7478	7011	6599	6232	5904	5609
90	21008	20258	19559	18907	16206	14180	12605	11344	10313	9453	8726	8103	7562	7090	6673	6302	5970	5672
91	21241	20483	19776	19117	16386	14338	12745	11470	10427	9558	8823	8193	7647	7169	6747	6372	6037	5735
92	21475	20708	19994	19327	16566	14495	12885	11596	10542	9663	8920	8283	7731	7247	6821	6442	6103	5798
93	21708	20933	20211	19537	16746	14653	13025	11722	10656	9768	9017	8373	7815	7326	6895	6512	6169	5861
94	21942	21158	20428	19747	16926	14810	13165	11848	10771	9873	9114	8463	7899	7405	6969	6582	6236	5924
95	22175	21383	20646	19957	17106	14968	13305	11974	10886	9978	9211	8553	7983	7484	7043	6652	6302	5987
96	22408	21608	20863	20168	17286	15126	13445	12100	11000	10084	9308	8643	8067	7562	7118	6722	6368	6050
97	22642	21833	21080	20378	17466	15283	13585	12256	11115	10189	9405	8733	8151	7641	7192	6792	6435	6113
98	22875	22058	21298	20588	17647	15441	13725	12352	11229	10294	9502	8823	8235	7720	7266	6862	6501	6176
99	23109	22283	21515	20798	17827	15598	13865	12478	11344	10399	9599	8913	8319	7799	7340	6932	6567	6239
100	23342	22509	21732	21008	18007	15756	14005	12605	11459	10504	9696	9003	8403	7878	7414	7002	6634	6302

## ENGINEERING INFORMATION

### V-Belt Drive Formulas

**V-belt tensioning** In cases where tensioning of a drive effects belt pull and bearing loads, the following formulas may be used.

$$T_1 - T_2 = 33,000 \left( \frac{HP}{V} \right)$$

where:  $T_1$  = tight side tension, pounds  
 $T_2$  = slack side tension, pounds  
 HP = design horsepower  
 V = belt speed, feet per minute

$$T_1 + T_2 = 33,000 (2.5 - G) \left( \frac{HP}{GV} \right)$$

where:  $T_1$  = tight side tension, pounds  
 $T_2$  = slack side tension, pounds  
 HP = design horsepower  
 V = belt speed, feet per minute  
 G = arc of contact correction factor \*

$$T_1/T_2 = \frac{1}{1 - 0.8 G} \quad (\text{Also, } T_1/T_2 = eK\theta)$$

where:  $T_1$  = tight side tension, pounds  
 $T_2$  = slack side tension, pounds  
 G = arc of contact correction factor \*  
 e = base of natural logarithms  
 K = .51230, a constant for V-belt drive design  
 $\theta$  = arc of contact in radians

$$T_1 = 41,250 \left( \frac{HP}{GV} \right)$$

where:  $T_1$  = tight side tension, pounds  
 HP = design horsepower  
 V = belt speed, feet per minute  
 G = arc of contact correction factor \*

$$T_2 = 33,000 (1.25 - G) \left( \frac{HP}{GV} \right)$$

where:  $T_2$  = slack side tension, pounds  
 HP = design horsepower  
 V = belt speed, feet per minute  
 G = arc of contact correction factor \*

#### Belt Speed

$$V = \frac{(PD)(rpm)}{3.82} = (PD)(rpm) (.262)$$

where: V = belt speed, feet per minute  
 PD = pitch diameter of sheave or pulley  
 rpm = revolutions per minute of the same sheave or pulley

\*See Table 21, at left.

**Table 21—Arc of Contact Correction Factors G and R**

D-d C	Small Sheave Arc of Contact	Factor G	Factor R	D-d C	Small Sheave Arc of Contact	Factor G	Factor R
.00	180°	1.00	1.000	.80	133°	.87	.917
.10	174°	.99	.999	.90	127°	.85	.893
.20	169°	.97	.995	1.00	120°	.82	.866
.30	163°	.96	.989	1.10	113°	.80	.835
.40	157°	.94	.980	1.20	106°	.77	.800
.50	151°	.93	.968	1.30	99°	.73	.760
.60	145°	.91	.954	1.40	91°	.70	.714
.70	139°	.89	.937	1.50	83°	.65	.661

D = Diam. of large sheave, d = Diam. of small sheave.  
 C = Center distance.

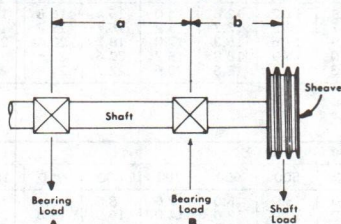
**Table 22—Allowable Sheave Rim Speed**

Sheave Material	Rim Speed in Feet per Minute
Cast Iron	6,500
Ductile Iron	8,000
Steel	10,000

**Note:** Above rim speed values are maximum for normal considerations. In some cases these values may be exceeded. Consult factory and include complete details of proposed application.

### Bearing Load Calculations

To find actual bearing loads it is necessary to know machine component weights and values of all other forces contributing to the load. Sometimes it becomes desirable to know the bearing load imposed by the

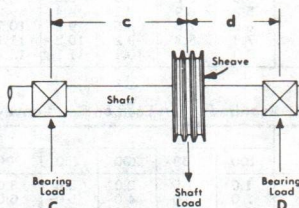


#### Overhung Sheave

$$\text{Load at B, lbs.} = \frac{\text{Shaft Load} \times (a + b)}{a}$$

$$\text{Load at A, lbs.} = \frac{\text{Shaft load} \times b}{a}$$

Where: a and b = Spacing, inches



#### Sheave Between Bearings

$$\text{Load at D, lbs.} = \frac{\text{Shaft Load} \times c}{c + d}$$

$$\text{Load at C, lbs.} = \frac{\text{Shaft Load} \times d}{c + d}$$

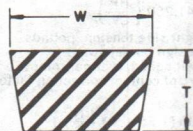
Where: c and d = Spacing, inches



## ENGINEERING INFORMATION

### Nominal V-Belt Cross Sections

**Table 23—Nominal V-Belt Cross Sections**



Belt Section	Industry Standard Description	Width W, in Inches	Thickness T, in Inches
3L 4L 5L	FHP, Single	$\frac{3}{8}$ $\frac{1}{2}$ $1\frac{1}{2}$	$\frac{1}{32}$ $\frac{1}{16}$ $\frac{3}{16}$
3V 5V 8V	Narrow*	$\frac{3}{8}$ $\frac{1}{2}$ 1	$\frac{1}{16}$ $\frac{1}{8}$ $1\frac{1}{2}$
A B C D	Classical Multiple *	$\frac{1}{2}$ $1\frac{1}{2}$ $2\frac{1}{2}$ $3\frac{1}{2}$	$\frac{1}{16}$ $\frac{1}{8}$ $\frac{1}{4}$ $\frac{3}{8}$

\* For industry standard sheave groove dimensions see opposite page.

### Horsepower Required for Belt Conveyors

The horsepower required to operate a belt conveyor depends on the following:

1. Maximum tonnage to be handled.
2. Length of the conveyor.
3. Vertical distance material has to be lifted.

To determine horsepower required for a Horizontal Conveyor use Table 24 only. To determine horsepower required for an Inclined Conveyor use both Table 24 and 25. Figure each one separately and add together

to determine total horsepower required.

The table figures are based on average conditions with a uniformly fed conveyor running at normal operating speeds. If a mechanical feeder, tripper or other attachment is used, add the additional horsepower required. If tons are given as long tons, (2,240 lb.), multiply by 1.12 to convert to short (2,000 lb.) tons, before using tables.

**Table 24—HP Required to Operate Loaded Conveyor on the Level**

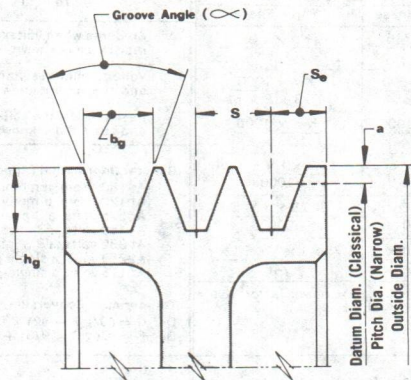
Length of Conveyor in Feet	Short Tons Per Hour (2000 Lbs.)											
	100	150	200	250	300	350	400	500	600	700	800	1000
25	2.0	2.3	2.5	2.7	3.0	3.3	3.5	4.0	4.5	5.0	5.5	6.5
50	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.8	5.4	6.0	6.6	7.8
75	2.8	3.1	3.5	3.8	4.1	4.5	4.8	5.5	6.2	6.9	7.6	9.0
100	3.0	3.4	3.8	4.2	4.5	4.9	5.3	6.0	6.8	7.5	8.3	9.8
125	3.4	3.8	4.2	4.6	5.0	5.4	5.8	6.6	7.4	8.2	9.0	10.6
150	3.7	4.1	4.6	5.0	5.5	5.9	6.3	7.2	8.1	9.0	9.9	11.5
175	4.0	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	10.0	11.0	13.0
200	4.3	4.8	5.3	5.8	6.4	7.0	7.5	8.6	9.7	10.8	11.9	14.1
225	4.6	5.1	5.7	6.2	6.8	7.3	8.0	9.2	10.4	11.6	12.8	15.2
250	4.9	5.5	6.2	6.8	7.5	8.0	8.8	10.1	11.4	12.7	14.0	16.6
300	5.6	6.2	7.0	7.6	8.4	9.0	9.8	11.2	12.6	14.0	15.4	18.2
350	6.2	6.9	7.7	8.4	9.2	10.0	10.7	12.2	13.7	15.2	16.7	19.7
400	6.8	7.6	8.5	9.2	10.2	11.0	11.9	13.6	15.3	17.0	18.7	22.1
450	7.3	8.3	9.2	10.2	11.1	12.0	13.0	14.9	16.8	18.7	20.6	24.4
500	8.0	9.0	10.1	11.1	12.2	13.2	14.3	16.4	18.5	20.6	22.7	26.9

**Table 25—HP Required to Lift Load on Belt Conveyor**

Lift in Feet	Short Tons Per Hour (2000 Lbs.)											
	100	150	200	250	300	350	400	500	600	700	800	1000
10	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0	6.0	7.0	8.0	10.0
20	2.0	3.0	4.0	5.0	6.0	7.0	8.0	10.0	12.0	14.0	16.0	20.0
30	3.0	4.5	6.0	7.5	9.0	10.5	12.0	15.0	18.0	21.0	24.0	30.0
40	4.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0	24.0	28.0	32.0	40.0
50	5.0	7.5	10.0	12.5	15.0	17.5	20.0	25.0	30.0	35.0	40.0	50.0
60	6.0	9.0	12.0	15.0	18.0	21.0	24.0	30.0	36.0	42.0	48.0	60.0
70	7.0	10.5	14.0	17.5	21.0	24.5	28.0	35.0	42.0	49.0	56.0	70.0
80	8.0	12.0	16.0	20.0	24.0	28.0	32.0	40.0	48.0	56.0	64.0	80.0
90	9.0	13.5	18.0	22.5	27.0	31.5	36.0	45.0	54.0	63.0	72.0	90.0
100	10.0	15.0	20.0	25.0	30.0	35.0	40.0	50.0	60.0	70.0	80.0	100.0

# ENGINEERING INFORMATION

## V-Belt Sheave Groove Dimensions



### Narrow

Belt Section	Outside Diameter Range	$\alpha$ $\pm 0.25^\circ$	$b_g$ $\pm .005$	$h_g$ Min.	a	S $\pm .015$	$S_e$
3VX, 3V	LESS THAN 3.50 .....	$36^\circ$	.350	0.340	.025	.406	0.344 $^{+.094}_{-.000}$
	3.50 TO 6.00 .....	$38^\circ$					
	6.01 TO 12.00 .....	$40^\circ$					
	Over 12.00 .....	$42^\circ$					
5VX, 5V	Less than 10.00 .....	$38^\circ$	.600	0.590	.050	.0688	0.500 $^{+.125}_{-.000}$
	10.00 TO 16.00 .....	$40^\circ$					
	Over 16.00 .....	$42^\circ$					
8VX, 8v	Less than 16.00 .....	$38^\circ$	1.000	0.990	.100	1.125	0.750 $^{+.250}_{-.000}$
	16.00 TO 22.40 .....	$40^\circ$					
	Over 22.40 .....	$42^\circ$					

### Classical

Belt Section	Pitch Diameter		$\alpha$ $\pm 0.33^\circ$	$b_g$	$h_g$ Min.	$a$	S $\pm .025$	$S_e$
	Min. Recom.	Range						
AX, A	3.0	2.6 to 5.4 ..... Over 5.4 .....	$34^\circ$ $38^\circ$	.494 .504 } $\pm .005$	.460	.125	.625	.375 +.090 -.062
BX, B	5.4	4.6 to 7.0 ..... Over 7.0 .....	$34^\circ$ $38^\circ$	.637 .650 } $\pm .006$	.550	.175	.750	.500 +.120 -.065
A, B AX, BX	-	To 7.0 ..... Over 7.0 .....	$34^\circ$ $38^\circ$	.612 .625 } $\pm .006$	.612 .125 .175		.750	.500 +.120 -.065
CX, C	9.0	7.0 to 7.99 ..... 8.0 to 12.0 ..... Over 12.0 .....	$34^\circ$ $36^\circ$ $38^\circ$	.879 .887 .895 } $\pm .007$	.750	.200	1.000	.688 +.160 -.070
DX, D	13.0	12.0 to 12.99 .... 13.0 to 17.0 ..... Over 17.0 .....	$34^\circ$ $36^\circ$ $38^\circ$	1.259 1.271 1.283 } $\pm .008$	1.020	.300	1.438	.875 +.220 -.080
E	21.0	18.0 to 24.0 ..... Over 24.0 .....	$36^\circ$ $38^\circ$	1.527 1.542 } $\pm .010$	1.300	.400	1.750	1.125 +.250 -.000

Note—For complete manufacturing tolerances—see RMA, MPTA Narrow/Classical V-belt Standards.

\*Datum diameter, not pitch diameter.



# ENGINEERING INFORMATION

## Electrical

Table 27—Electrical Formulas

To Find	Alternating Current		To Find	Alternating or Direct Current
	Single-Phase	Three-Phase		
Amperes when horsepower is known	$\frac{Hp \times 746}{E \times Eff \times pf}$	$\frac{Hp \times 746}{1.73 \times E \times Eff \times pf}$	Amperes when voltage and resistance is known	$\frac{E}{R}$
Amperes when kilowatts are known	$\frac{Kw \times 1000}{E \times pf}$	$\frac{Kw \times 1000}{1.73 \times E \times pf}$	Voltage when resistance and current are known	$IR$
Amperes when Kva are known	$\frac{Kva \times 1000}{E}$	$\frac{Kva \times 1000}{1.73 \times E}$	Resistance when voltage and current are known	$\frac{E}{I}$
Kilowatts	$\frac{I \times E \times pf}{1000}$	$\frac{1.73 \times I \times E \times pf}{1000}$	<b>General Information (Approximation)</b> (At 1800 rpm, a motor develops 36 lb.-in. per hp At 1200 rpm, a motor develops 54 lb.-in. per hp At 575 volts, a 3-phase motor draws 1 amp per hp At 460 volts, a 3-phase motor draws 1.25 amp per hp At 230 volts, a 3-phase motor draws 2.5 amp per hp At 230 volts, a single-phase motor draws 5 amp per hp At 115 volts, a single-phase motor draws 10 amp per hp	
Kva	$\frac{I \times E}{1000}$	$\frac{1.73 \times I \times E}{1000}$		
Horsepower = (Output)	$\frac{I \times E \times Eff \times pf}{746}$	$\frac{1.73 \times I \times E \times Eff \times pf}{746}$	<b>Temperature Conversion:</b> Deg C = (Deg F - 32) × 5/9 Deg F = (Deg C × 9/5) + 32	

I = Amperes; E = Volts; Eff = Efficiency; pf = power factor; Kva = Kilovolt amperes; Kw = Kilowatts; R = Ohms.

Table 28—AC Motor Recommended Wire Size

Volts	Motor Horsepower																	
	1-3	5	7½	10	15	20	25	30	40	50	60	75	100	125	150	200	250	300
230	14	12	10	8	6	4	3	1	0	000	000	300	500	000	000	000	900	1500
460	14	14	12	10	8	6	4	3	2	3	2	0	000	000	000	250	500	600
575	14	14	14	14	12	10	8	6	6	4	3	2	0	000	000	250	500	600

Insure that the requirements of the National Electric Code are fully met in all installations. This table is included as a guide only and is based on 3 phase, continuous duty, design B, standard efficiency motors using Goovolt Insulation, Type THW, with individual cooper conductors run in rigid conduit as defined in the 1987 NEC.

Table 29—Motor Amps @ Full Load†

HP	Alternating Current		DC	HP	Alternating Current		DC	HP	Alternating Current		DC	HP	Alternating Current		DC
	Single-phase	3-phase			Single-phase	3-phase			Single-phase	3-phase			Single-phase	3-phase	
½	4.9	2.0	2.7	5	28	14.4	20	25	60	92	75	75	180	268	
1	8.0	3.4	4.8	7½	40	21.0	29	30	75	110	100	100	240	355	
1½	10.0	4.8	6.6	10	50	26.0	38	40	100	146	125	125	300	443	
2	12.0	6.2	8.5	15	75	38.0	56	50	120	180	150	150	360	534	
3	17.0	8.6	12.5	20	100	50.0	74	60	150	215	200	200	480	712	

† Values are for all speeds and frequencies @ 230 volts.

Amperage other than 230 volts can be figured:

$$V = \frac{230 \times \text{Amp from Table}}{\text{New Voltage}}$$

Example:

For 60 hp, 3 phase @ 550 volts:  $\frac{(230 \times 150)}{550} = 62 \text{ amps.}$   
 Power Factor estimated @ 80% for most motors. Efficiency is usually 80-90%.

Table 30—NEMA Electrical Enclosure Types

Type	Description	Type	Description
NEMA Type 1 (General Purposes)	For indoor use wherever oil, dust or water is not a problem.	NEMA Type 5 Dust Tight (Non-Hazardous)	Used for excluding dust. (All NEMA 12 enclosures are usually suitable for NEMA 5 use.)
NEMA Type 2 (Driptight)	Used indoors to exclude falling moisture and dirt.	NEMA Type 9 Dust Tight (Hazardous)†	For locations where combustible dusts are present.
NEMA Type 3 (Weatherproof)	Provides protection against rain, sleet and snow.	NEMA Type 12 (Industrial Use)	Used for excluding oil, coolant, flying dust, lint, etc.
NEMA Type 4 (Watertight)	Needed when subject to great amounts of water from any angle—such as areas which are repeatedly hosed down.		

† Not designed to be submerged.

‡ Class II Groups E, F and G.

# ENGINEERING INFORMATION

## A-C MOTOR INFORMATION

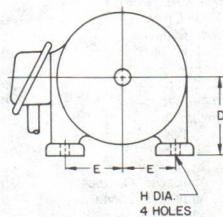
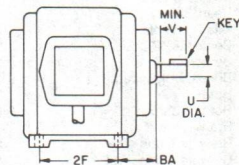
### (NEMA Frame Designation)

Table 31—Frame Assignments

HP	Motor Speed, rpm				HP	Motor Speed, rpm			
	3600	1800	1200	900		3600	1800	1200	900
1/8-1/4		48			15	215T, 256U	254T, 284U	284T, 324U	286T, 326U
1/8-1/2	48		56		20	254T, 284U	256T, 286U	286T, 326U	324T, 364U
1/4			48		25	256T, 286U	284T, 324U	324T, 364U	326T, 366U
1/2-1	56				30	284TS, 324S	286T, 326U	326T, 366U	364T, 404U
3/4					40	286TS, 326S	324T, 364U	364T, 404U	365T, 405U
1 1/2			143T	143T	50	324TS, 364US	326T, 365U, 365US	365T, 405U	404T, 444U
3/4			143T	145T	60	326TS, 365US	364TS▲, 404U, 404US	404T, 444U	405T, 445U
1		143T	145T	182T	75	364TS, 404US	365TS▲, 405U, 405US	405T, 445U	444T
1 1/2	143T	145T	182T	184T	100	365TS, 405US	404TS▲, 444US	444T	445T
2	145T	145T	184T	213T	125	404TS, 444US	405TS▲, 445US	445T	
3	145T	182T	213T	215T, 254U	150	405TS, 445US	444TS▲		
5	182T	184T	215T, 254U	254T, 256U	200	444TS			
7 1/2	184T	213T, 254U	254T, 256U	256T, 284U	250	445TS			
10	213T, 254U	215T, 256U	256T, 284U	284T, 286U	...				

Table 32—Motor Frame Dimensions

Frame Size	D	E	2F	H Dia. (4) Holes	U Dia.	BA	V Min.	Key
48	3	2 1/8	2 3/4	1 1/32	1/2	2 1/2	...	3/64 Flat
56	3 1/2	2 1/16	3	1 1/32	5/8	2 3/4	...	3/16 x 3/16 x 1 1/8
143T	3 1/2	2 3/4	4	1 1/32	7/8	2 1/4	2	3/16 x 3/16 x 1 3/8
145T	3 1/2	2 3/4	5	1 1/32	7/8	2 1/4	2	3/16 x 3/16 x 1 3/8
182T	4 1/2	3 3/4	4 1/2	1 1/32	1 1/8	2 3/4	2 1/2	1/4 x 1/4 x 1 3/4
184T	4 1/2	3 3/4	5 1/2	1 1/32	1 1/8	2 3/4	2 1/2	1/4 x 1/4 x 1 3/4
213T	5 1/4	4 1/4	5 1/2	1 1/32	1 3/8	3 1/2	3 1/8	5/16 x 5/16 x 2 3/8
215T	5 1/4	4 1/4	7	1 1/32	1 3/8	3 1/2	3 1/8	5/16 x 5/16 x 2 3/8
254U	6 1/4	5	8 1/4	1 1/32	1 3/8	4 1/4	3 1/2	5/16 x 5/16 x 2 3/4
256T	6 1/4	5	8 1/4	1 1/32	1 3/8	4 1/4	3 1/2	5/16 x 5/16 x 2 3/4
256U	6 1/4	5	10	1 1/32	1 3/8	4 1/4	3 1/2	5/16 x 5/16 x 2 3/4
256T	6 1/4	5	10	1 1/32	1 3/8	4 1/4	3 1/2	5/16 x 5/16 x 2 3/4
284U	7	5 1/2	9 1/2	1 1/32	1 3/8	4 3/4	4 5/8	3/8 x 3/8 x 3 1/4
284T	7	5 1/2	9 1/2	1 1/32	1 3/8	4 3/4	4 5/8	3/8 x 3/8 x 3 1/4
284TS	7	5 1/2	9 1/2	1 1/32	1 3/8	4 3/4	4 5/8	3/8 x 3/8 x 1 7/8
286U	7	5 1/2	11	1 1/32	1 3/8	4 3/4	4 5/8	3/8 x 3/8 x 3 3/4
286T	7	5 1/2	11	1 1/32	1 3/8	4 3/4	4 5/8	1/2 x 1/2 x 3 3/4
286TS	7	5 1/2	11	1 1/32	1 3/8	4 3/4	4 5/8	3/8 x 3/8 x 1 7/8
324U	8	6 1/4	10 1/2	2 1/32	1 7/8	5 1/4	5 3/8	1/2 x 1/2 x 4 1/4
324T	8	6 1/4	10 1/2	2 1/32	1 7/8	5 1/4	5	1/2 x 1/2 x 3 7/8
324TS	8	6 1/4	10 1/2	2 1/32	1 7/8	5 1/4	3 1/2	1/2 x 1/2 x 2
326U	8	6 1/4	12	2 1/32	1 7/8	5 1/4	5 3/8	1/2 x 1/2 x 4 1/4
326T	8	6 1/4	12	2 1/32	1 7/8	5 1/4	5	1/2 x 1/2 x 3 7/8
326TS	8	6 1/4	12	2 1/32	1 7/8	5 1/4	3 1/2	1/2 x 1/2 x 2
364U	9	7	11 1/4	2 1/32	2 1/8	5 7/8	6 1/8	1/2 x 1/2 x 5
364US	9	7	11 1/4	2 1/32	2 1/8	5 7/8	3 1/2	1/2 x 1/2 x 2
364T	9	7	11 1/4	2 1/32	2 1/8	5 7/8	5 3/8	3/8 x 3/8 x 4 1/4
364TS	9	7	11 1/4	2 1/32	2 1/8	5 7/8	3 1/2	1/2 x 1/2 x 2
365U	9	7	12 1/4	2 1/32	2 1/8	5 7/8	6 1/8	1/2 x 1/2 x 5
365US	9	7	12 1/4	2 1/32	2 1/8	5 7/8	3 1/2	1/2 x 1/2 x 2
365T	9	7	12 1/4	2 1/32	2 1/8	5 7/8	5 3/8	5/8 x 5/8 x 4 1/4
365TS	9	7	12 1/4	2 1/32	2 1/8	5 7/8	3 1/2	1/2 x 1/2 x 2
404U	10	8	12 1/4	1 3/16	2 3/8	6 5/8	6 7/8	5/8 x 5/8 x 5 1/2
404US	10	8	12 1/4	1 3/16	2 3/8	6 5/8	4	1/2 x 1/2 x 2 3/4
404T	10	8	12 1/4	1 3/16	2 3/8	6 5/8	7	3/4 x 3/4 x 5 5/8
404TS	10	8	12 1/4	1 3/16	2 3/8	6 5/8	4	1/2 x 1/2 x 2 3/4
405U	10	8	13 3/4	1 3/16	2 3/8	6 5/8	6 7/8	5/8 x 5/8 x 5 1/2
405US	10	8	13 3/4	1 3/16	2 3/8	6 5/8	4	1/2 x 1/2 x 2 3/4
405T	10	8	13 3/4	1 3/16	2 3/8	6 5/8	7	3/4 x 3/4 x 5 5/8
405TS	10	8	13 3/4	1 3/16	2 3/8	6 5/8	4	1/2 x 1/2 x 2 3/4
444U	11	9	14 1/2	1 3/16	2 3/8	7 1/2	8 3/8	3/4 x 3/4 x 7
444US	11	9	14 1/2	1 3/16	2 3/8	7 1/2	4	1/2 x 1/2 x 2 3/4
444T	11	9	14 1/2	1 3/16	2 3/8	7 1/2	8 1/4	7/8 x 7/8 x 6 5/8
444TS	11	9	14 1/2	1 3/16	2 3/8	7 1/2	4 1/2	5/8 x 5/8 x 3
445U	11	9	16 1/2	1 3/16	2 3/8	7 1/2	8 3/8	3/4 x 3/4 x 7
445US	11	9	16 1/2	1 3/16	2 3/8	7 1/2	4	1/2 x 1/2 x 2 3/4
445T	11	9	16 1/2	1 3/16	2 3/8	7 1/2	8 1/4	7/8 x 7/8 x 6 5/8
445TS	11	9	16 1/2	1 3/16	2 3/8	7 1/2	4 1/2	5/8 x 5/8 x 3



Shaded area indicates typical single phase standard squirrel-cage, open type, a-c motors. Balance of table same except three phase, design A and B.

▲ When these motors are used with V-belt or chain drives, the correct frame size is the one with the suffix "S" omitted—consult manufacturer.



# ENGINEERING INFORMATION

## Table 33—Material Characteristics

MATERIAL	DENSITY (LB/FT <sup>3</sup> )	ANGLE OF REPOSE (DEG)	MATERIAL	DENSITY (LB/FT <sup>3</sup> )	ANGLE OF REPOSE (DEG)
Alfalfa, Ground	16	45°	Corn, Shelled	45	25°
Alum, Lumpy	50 - 60	35°	Corn Sugar	30	35°
Alum, Pulverized	45 - 50	35°	Corn Grits	40 - 45	35°
Alumina	60	30°	Cornmeal	32 - 40	35°
Aluminum Oxide	70 - 120	30°	Cottonseed, Dry, De-Linted	35	35°
Ammonium Sulphate	45 - 60	45°	Cottonseed, Dry, Not De-Linted	18 - 25	45°
Asbestos, Shredded	20 - 25	45°	Cottonseed, Cake, Lumpy	40 - 45	35°
Ashes, Dry	35 - 40	45°	Cottonseed, Hulls	12	45°
Ashes, Wet	45 - 50	45°	Cottonseed, Meal	35 - 40	35°
Ashes, Soft Coal	35 - 45	40°	Cottonseed, Meats	40	35°
Asphalt, Crushed	45	35°	Cryolite	90 - 110	35°
Bagasse	7.5	45°	Cullet	80 - 120	35°
Bakelite, Powder	30 - 40	45°	Diatomaceous Earth	11 - 14	35°
Baking Powder	40 - 50	35°	Dolomite, Lumpy	90 - 100	35°
Bark, Wood Refuse	10 - 20	45°	Dolomite, Pulverized	46	40°
Barley	38	25°	Earth, Dry	70 - 80	35°
Basalt	80 - 120	25°	Earth, Moist	75 - 110	40°
Bauxite, Crushed	75 - 85	35°	Earth, Fullers Dry	30 - 35	23°
Beans, Castor, Whole	30 - 45	25°	Emery	225	25°
Beans, Cocoa	30 - 45	35°	Epsom Salt	40 - 50	35°
Beans, Navy	50	25°	Fledspar, Lumps	70 - 100	35°
Beans, Whole	45	45°	Fledspar, Dust	80 - 100	40°
Bentonite, Crude	35 - 40	45°	Fish, Meal	35 - 40	40°
Bentonite, Fine	50 - 60	45°	Fish, Scrap	40 - 50	0°
Bones, Pulverized	50 - 60	45°	Flaxseed, Whole	45	25°
Borax, Fine	50 - 55	35°	Flaxseed, Meal	25	35°
Borax Coarse	60 - 70	35°	Flour, Wheat	35 - 40	45°
Bran	16	35°	Flue Dust, Dry	30 - 40	20°
Brewers Grain, Dry	25 - 35	45°	Fluorspar, Dust	85 - 95	45°
Brewers Grain, Wet	55 - 60	45°	Fluorspar, Lumps	80 - 110	45°
Buck Wheat	40	25°	Foundry, Refuse	60 - 80	35°
Calcium, Carbide	70 - 80	35°	Foundry Sand, Loose	80 - 90	35°
Carbon Black, Pellets	25	25°	Foundry Sand, Rammed	100 - 110	0°
Carbon Black, Powder	5	35°	Galena	250	35°
Cast Iron Chips	100 - 120	45°	Garbage, Average	30	25°
Cement, Clinker	75 - 90	35°	Glass, Batch Fiber	45 - 55	10°
Cement, Portland	80 - 100	35°	Glass, Batch Wool	80 - 100	35°
Chalk, Fine	65 - 75	45°	Glass, Broken	80 - 100	10°
Chalk, Lumpy	80 - 95	45°	Glue, Animal, Flaked	35	25°
Charcoal, Wood	15 - 30	35°	Glue, Vegetable, Powdered	40	35°
Chromium Ore	125 - 140	35°	Gluten, Meal	39	35°
Cinders, Coal	40	35°	Granite, Lumps	150 - 170	25°
Clay, Dry, Fine	100 - 120	35°	Graphite, Flakes	40	35°
Clay, Dry, Lumpy	60 - 75	35°	Graphite, Powder	30	25°
Coal, Anthracite, Coarse	60 - 70	35°	Graphite, Ore	65 - 75	35°
Coal, Anthracite, Loose	50 - 60	30°	Grass Seed	10	35°
Coal, Bituminous, Coarse	50 - 60	35°	Gravel, Dry	90 - 100	35°
Coal, Bituminous, Loose	45 - 50	35°	Gravel, Wet	100 - 120	35°
Cocoa Nibs	35 - 40	35°	Gypsum, Lumps	90 - 100	35°
Cocoanut, Shredded	20 - 25	45°	Gypsum, Ground	75 - 80	35°
Coffee, Fresh Beans	30 - 40	35°	Hay, Loose	5	0°
Coffee, Roasted Beans	22 - 30	25°	Hay, Pressed	25	0°
Coke, Loose	23 - 32	35°	Hominy	35 - 50	35°
Coke Pulverized	25 - 35	45°	Hops, Spent, Dry	25 - 35	45°
Coke, Petroleum Calcinated	35 - 45	35°	Hops, Spent, Wet	55 - 60	45°
Concrete, Cinder	112	0°	Ice, Crushed	35 - 40	20°
Concrete, Gravel & Sand	150	0°	Ilmenite Ore	140 - 160	35°
Copper Ore	120 - 150	35°	Iron Ore	120 - 180	35°
Copper Sulfate	75 - 85	30°	Iron Ore, Pellets	120 - 140	35°
Cork, Ground	5 - 15	45°	Iron Sulphate	50 - 75	35°
Corn, On Cob	45	0°	Iron Sulfide	120 - 140	35°

# ENGINEERING INFORMATION

## Table 34—Material Characteristics

MATERIAL	DENSITY (LB/FT <sup>3</sup> )	ANGLE OF REPOSE (DEG)	MATERIAL	DENSITY (LB/FT <sup>3</sup> )	ANGLE OF REPOSE (DEG)
Kaolin, Clay	60	35°	Rubber, Pellets	50 - 55	35°
Lactose	30	35°	Rubber, Ground Scrap	25 - 35	45°
Lead Ore, Crushed	180 - 270	30°	Rye	42 - 45	25°
Lead Oxides	60 - 150	40°	Rye Meal	35 - 40	20°
Lead Sulfate	170 - 190	45°	Salt Cake	80 - 95	30°
Lead Sulfide	240 - 260	35°	Salt, Coarse	45 - 55	35°
Lignite, Air Dried	45 - 55	35°	Salt, Fine	70 - 80	35°
Lime, Ground	60 - 65	40°	Sand, Wet	110 - 130	45°
Lime, Hydrated	40	40°	Sand, Dry	90 - 110	35°
Lime, Pebble	30 - 40	40°	Sand, Loose, Foundry	80 - 100	35°
Limestone, Loose	80 - 100	35°	Sand, Foundry, Rammed	100 - 110	0°
Limestone, Pulverized	85 - 90	45°	Sandstone	80 - 90	35°
Linseed, Whole	45 - 50	25°	Sawdust	10 - 25	30°
Linseed, Meal	30 - 40	35°	Scale, Rolling Mill	125 - 160	45°
Magnesium Chloride	30 - 35	40°	Sewage Sludge, Dry	45 - 55	35°
Magnesium Sulfate	40 - 60	35°	Sewage Sludge, Wet	50 - 60	35°
Malt, Dry	25 - 30	30°	Shale, Broken	90 - 100	25°
Malt, Wet	60 - 65	45°	Shale, Crushed	85 - 90	40°
Malt, Meal	35 - 40	35°	Silica Gel, Dry	45	35°
Manganese Ore	125 - 140	40°	Slag, Blast Furnace	80 - 90	25°
Manganese Oxide	120	35°	Slag, Granular, Dry	60 - 65	25°
Manganese Sulfate	70	35°	Slag, Granular, Wet	90 - 100	45°
Manure	25	0°	Slate, Ground	80 - 90	30°
Marble, Crushed	80 - 95	35°	Slate, Lumps	85 - 95	0°
Mari	80	35°	Snow, Compacted	15 - 50	0°
Mica, Flakes	20	20°	Soap	10 - 25	35°
Mica, Ground	15	35°	Soda Ash, Briquettes	50	20°
Milk, Dried, Flaked	5	35°	Soda Ash, Heavy	55 - 65	30°
Milk, Malted	25 - 35	45°	Soda Ash, Light	20 - 35	35°
Milk, Powdered	20 - 30	40°	Sodium Aluminum, Ground	72	35°
Milo Maize	55 - 60	35°	Sodium Nitrate, Ground	70 - 80	24°
Molybdenum Ore	100 - 110	40°	Sodium Phosphate	50 - 65	35°
Mortar, Wet	150	0°	Soybeans, Cracked	30 - 40	35°
Niacin	35	35°	Soybeans, Whole	45 - 50	25°
Nickel—Cobalt Sulfate Ore	80 - 150	35°	Starch, Powdered	25 - 45	25°
Oats	25 - 35	25°	Steel, Chips	100 - 150	35°
Oats, Rolled	20	35°	Steel, Turnings	60 - 120	45°
Oil Cake	50	45°	Sugar, Cane, Raw	55 - 65	45°
Oxalic Acid Crystals	60	35°	Sugar, Granulated, Dry	50 - 55	35°
Oyster Shells, Ground	50 - 60	35°	Sugar, Granulated, Wet	55 - 65	40°
Oyster Shells, Whole	80	35°	Sugar Cane, Knifed	15 - 18	45°
Paper Pulp Stock	40 - 60	20°	Sulphur, Lumps	80 - 85	35°
Peanuts, Shelled	35 - 45	35°	Sulphur, Dust	50 - 70	35°
Peanuts, Not Shelled	15 - 20	35°	Taconite, Pellets	120 - 140	35°
Peas, Dried	45 - 50	0°	Talc, Granulated	50 - 70	20°
Phosphate, Fertilizer	50 - 60	35°	Titanium Dioxide	140	35°
Phosphate, Rock, Crushed	60 - 100	35°	Titanium Sponge	60 - 70	45°
Potash	70 - 80	30°	Tobacco, Leaves	14	45°
Potassium Chloride	120 - 130	35°	Tobacco, Scraps	15 - 25	45°
Potassium Nitrate	75 - 80	25°	Tobacco, Stems	15	45°
Potassium Sulfate	45	45°	Traprock, Crushed	95 - 110	35°
Potatoes, White	48	0°	Traprock, Lumps	100 - 110	35°
Pumice, Ground	40 - 45	45°	Turf	20 - 30	0°
Pyrites, Lumps	135 - 145	25°	Walnut, Shells	35 - 45	35°
Pyrites, Pellets	120 - 130	35°	Wheat	48	25°
Quartz, Lumps	95 - 100	25°	Wheat, Cracked	40 - 45	35°
Quartz, Sand	70 - 80	25°	Wheat Germ, Dry	20 - 30	25°
Rice, Hulled	45 - 50	20°	Wood Chips	10 - 30	45°
Rice, Rough	35	35°	Zinc Ore, Granular	160	35°
Rice, Grits	40 - 45	35°	Zinc Oxide	10 - 35	45°
Rock, Crushed	100 - 150	30°			



# ENGINEERING INFORMATION

**Table 35—Physical Properties of Materials**

Material	Chemical Symbol	Specific Gravity	Weight per Cubic Foot Pounds	Average Melting Point Degrees Fahr.	Linear Expansion per Unit Length per Deg. Fahr.	Material	Chemical Symbol	Specific Gravity	Weight per Cubic Foot Pounds	Average Melting Point Degrees Fahr.	Linear Expansion per Unit Length per Deg. Fahr.
<b>Metals and Alloys</b>						<b>Metals and Alloys (Cont.)</b>					
Aluminum	Al.	2.56	159.7	1218	0.00001234	Silver	Ag.	10.53	657.1	1761	0.00001079
Antimony	Sb.	6.71	418.7	1166	0.00000627	Sodium	Na.	0.98	61.1	207	.....
Barium	Ba.	3.75	234.0	1562	.....	Steel	Fe.	7.85	489.6	2500	0.00000663
Bismuth	Bi.	9.80	611.5	520	0.00000975	Tellurium	Te.	6.25	390.0	846	.....
Boron	B.	2.60	162.2	4250	.....	Tin	Sn.	7.29	454.8	449	0.00001163
Brass, 80 Cu. 20 Zn.	.....	8.60	536.6	1775	0.00000957	Titanium	Ti.	3.54	220.9	3272	.....
70 Cu. 30 Zn.	.....	8.40	524.1	1775	0.00000957	Tungsten	W.	18.77	1171.2	6128	.....
60 Cu. 40 Zn.	.....	8.36	521.7	1775	0.00000957	Vanadium	Va.	5.50	343.2	1787	.....
50 Cu. 50 Zn.	.....	8.20	511.6	1775	0.00000957	Zinc, Cast	Zn.	6.86	428.1	787	0.00001407
Bronze	.....	8.85	552.2	1675	0.00000986	Zinc, Rolled	Zn.	7.15	446.1	787	0.00001407
Cadmium	Cd.	8.60	536.6	610	.....	<b>Misc. Solids</b>					
Calcium	Ca.	1.57	98.0	1490	.....	Glass	.....	2.60	163	.....	0.00000047
Chromium	Cr.	6.50	405.6	2939	.....	Graphite	.....	1.9-2.3	131	.....	0.00000044
Cobalt	Co.	8.65	539.8	2696	.....	Gutta-percha	.....	.....	65	.....	0.0003322
Copper	Cu.	8.82	550.4	1981	0.00000887	Paraffin	.....	0.87-0.91	56	129	0.0001547
Gold	Au.	19.32	1205.6	1945	0.00000786	Porcelain	.....	.....	150	2820	0.00000020
Iridium	Ir.	22.42	1399.0	4260	0.00000356	<b>Stone and Masonry</b>					
Iron, Cast	Fe.	7.20	449.2	2300	0.00000556	Brick Masonry	.....	1.7	106	.....	0.00000031
Iron, Wrought	Fe.	7.85	489.8	2705	0.00000648	Cement, Portland (set)	.....	3.1	194	.....	0.00000059
Lead	Pb.	11.37	709.5	621	0.00001571	Concrete	.....	2.2	137	.....	0.00000079
Magnesium	Mg.	1.74	108.6	1204	.....	Concrete Masonry	.....	2.2-2.4	144	.....	0.00000067
Manganese	Mn.	7.42	463.0	2246	.....	Granite	.....	2.65	166	.....	0.00000047
Mercury (60°F)	Hg.	13.58	847.4	—38	.....	Limestone	.....	2.6	163	.....	0.00000044
Molybdenum	Mo.	8.56	534.2	4620	.....	Marble	.....	2.7	169	.....	0.00000056
Nickel	Ni.	8.80	549.1	2646	0.00000695	Plaster	.....	1.4-1.9	103	.....	0.00000092
Platinum, Rolled	Pt.	22.67	1414.6	3191	0.00000479	Rubble Masonry	.....	2.24-2.56	150	.....	0.00000035
Platinum, Wire	Pt.	21.04	1312.9	3191	0.00000479	Sandstone	.....	2.3	144	.....	0.00000061
Potassium	K	0.87	54.3	144	.....	Slate	.....	2.8	175	.....	0.00000058

## Average Properties of Standard Steels

The values shown below have been determined from tests and are offered as a general guide to probable physical properties of steels in common use in 1" rounds. Lower tensile properties are to be expected in large sections; the values of strength decrease as the size of the section increases. These values are not guaranteed and should under no circumstances be used in specifying the raw materials or as a basis for

acceptance or rejection of material. It must not be assumed that these properties will be obtained in all cases as they vary widely with permissible variations in analysis, size of section, rolling conditions, grain size and methods of heat treatment. Dependable physical properties can only be obtained through carefully controlled heat treatment.

**Table 36—Average Properties of Standard Steels**

AISI No.	SAE No.	Condition of Steel	Strength in 1000 PSI		% Elong. in 2"	% Red. of Area	Hardness		Machinability % of B1112 CD	Quenching	
			Tensile	Yield			Brinell	Rock-well		Temperature Degree Fahr.	Medium
B1112	1112	Natural Hot Rolled Mild Steel	50-60	30-40	30-40	55-65	115 Avg.	80-95B	50-55	.....	.....
B1113	1113	Cold Drawn Bessemer	75-90	60-70	12-16	40-50	170-185	80-95B	100	.....	.....
C1213	1113	Cold Drawn Bessemer	80-95	70-80	12-16	40-50	175-190	85-95B	120-140	.....	.....
C1015	1015	Cold Drawn	70-85	65-75	12-20	40-50	160-180	80-90B	120-140	.....	.....
C1018	1018	Natural Hot Rolled	50-65	32-45	30-40	55-65	110 Avg.	.....	50	.....	.....
		Cold Drawn	55-70	40-50	25-35	50-65	120-140	.....	55	.....	.....
		1" Rd. Carburized at 1700°F., Cooled in Box, Reheated, Quenched—Core Properties	70-85	50-70	18-25	45-55	160-180	80-90B	65	.....	.....
C1020	1020	Natural Hot Rolled	90-100	60-80	10-22	35-50	200-230	93-98B	.....	1625	Water
		Cold Drawn	60-80	40-50	25-35	50-65	120-145	60-98B	50	.....	.....
C1117	1117	Natural Hot Rolled	70-80	45-70	15-25	45-60	120-160	70-85B	60	.....	.....
		Cold Drawn	60-70	37-47	20-30	45-60	135-150	.....	80	.....	.....
		1" Rd. Carburized at 1700°F., Cooled in Box, Reheated, Quenched—Core Properties	80-90	60-75	15-20	40-50	160-190	80-90B	90	.....	.....
C1035	1035	Natural Hot Rolled	95-110	60-85	10-25	35-50	210-240	15-22C	.....	1625	Water
		Cold Drawn	75-85	40-55	18-25	40-55	155-175	.....	60	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	85-95	65-80	15-25	40-50	170-200	85-95B	55	.....	.....
C1040	1040	Natural Hot Rolled	95-105	70-80	20-25	55-60	195-220	93-98B	.....	1550	Water
		Cold Drawn	80-90	45-55	18-25	35-50	165-185	.....	60	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	90-100	70-85	14-20	35-50	190-215	91-98B	62	.....	.....
C1042	1042	Natural Hot Rolled	100-110	75-85	15-25	45-60	210-240	17-23C	52	.....	.....
		Cold Drawn	85-95	50-60	15-25	35-50	175-205	.....	58	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	90-105	75-90	12-20	30-45	185-215	.....	60	.....	.....
		.....	105-120	80-90	15-25	40-60	215-250	.....	1525	.....	Water

# ENGINEERING INFORMATION

**Table 37—Average Properties of Standard Steels (Continued)**

AISI No.	SAE No.	Condition of Steel	Strength in 1000 PSI		% Elong. in 2"	% Red. of Area	Hardness		Machinability % of B1112 CD	Quenching	
			Tensile	Yield			Brinell	Rockwell		Temperature Degree Fahr.	Medium
C1045	1045	Natural Hot Rolled	85-105	50-65	15-25	35-45	175-215	.....	55	.....	.....
		Cold Drawn	90-110	75-90	12-20	30-45	195-230	95-99B	58	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	110-130	80-95	12-25	40-55	235-260	22-26C	47	1500	Water
C1137	1137	Natural Hot Rolled	90-105	57-70	15-25	35-50	180-220	.....	65	.....	.....
		Cold Drawn	90-110	75-90	9-19	25-45	190-225	91-98B	70	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	115-130	90-105	15-22	40-55	250-280	24-28C	55	1550	Water
C1141	1141	Natural Hot Rolled	90-110	60-80	15-25	25-45	180-220	.....	65	.....	.....
		Cold Drawn	100-120	85-105	8-18	20-50	195-230	.....	70	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	120-145	100-130	10-20	35-50	270-310	.....	.....	1550	Water
C1144	1144	Natural Hot Rolled	95-110	60-85	15-25	30-45	200-240	.....	75	.....	.....
		Cold Drawn	100-120	90-115	7-17	20-45	210-245	17-23C	85	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	130-150	110-130	15	45	286-302	29-31C	.....	1550	Water
C1050	1050	Natural Hot Rolled	95-110	55-70	15	25-40	210-235	.....	50	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	115-135	85-100	10-22	35-50	240-265	23-27C	.....	1500	Water
		Hot Rolled, Annealed	90-110	55-65	15-25	40-50	190-220	.....	45	.....	.....
C1095	1095	1" Rd. Quenched, Tempered 1000°F.	170-180	120-130	10-13	30-40	360-380	38-40C	.....	1450	Water
		Hot Rolled, Annealed	120-140	60-75	15-25	35-50	190-235	12-22C	60	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	125-140	100-120	15-20	45-50	270-300	27-31C	.....	1550	Oil
2317	2317	Natural Hot Rolled	70-85	50-65	25-35	58-65	140-170	77-87B	50	.....	.....
		1" Rd. Carburized 1700°F., Cooled in box, Reheated, Quenched—Core Properties	140-160	110-120	12-18	35-45	310-350	32-37C	.....	1525	Oil
		Hot Rolled, Annealed	95-105	60-70	20-30	50-60	195-215	92-95B	55	.....	.....
3140	3140	1" Rd. Quenched, Tempered 1000°F.	140-150	120-130	15-20	50-60	300-325	31-35C	30	1550	Oil
		3" Rd. Quenched, Tempered 1000°F.	115-125	80-90	17-22	50-60	240-265	23-27C	.....	1550	Oil
		Hot Rolled, Annealed	90-100	60-70	20-30	50-60	185-210	91-95B	55	.....	.....
4140	4140	Cold Drawn, Annealed	110-120	85-95	15-25	45-55	230-250	20-25C	65	.....	.....
		Heat Treated, Cold Drawn	140-155	125-140	12-20	45-55	270-300	26-30C	45	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	150-160	130-140	15-20	50-60	320-350	34-37C	.....	1550	Oil
4147-50	4150	2" Rd. Quenched, Tempered 1000°F.	145-155	125-135	15-20	50-60	320-345	33-36C	.....	1550	Oil
		3" Rd. Quenched, Tempered 1000°F.	130-145	115-125	15-20	55-65	280-310	28-32C	.....	1550	Oil
		Hot Rolled, Annealed	90-105	65-75	20-30	50-60	185-215	92-96B	52	.....	.....
4340	4340	1" Rd. Quenched, Tempered 1000°F.	170-180	145-155	15-20	50-60	350-375	37-39C	.....	1525	Oil
		3" Rd. Quenched, Tempered 1000°F.	150-160	130-140	15-20	50-60	325-350	34-37C	.....	1525	Oil
		4" Rd. Quenched, Tempered 1000°F.	140-150	120-130	15-20	50-60	300-330	31-35C	.....	1525	Oil
4615	4615	5" Rd. Quenched, Tempered 1000°F.	135-150	115-125	15-22	52-62	295-320	30-34C	.....	1525	Oil
		Hot Rolled, Annealed	100-120	70-90	15-25	40-50	220-250	20-25C	45	.....	.....
		2" Rd. Quenched, Tempered 1000°F.	170-180	140-155	12-20	45-50	370-400	38-42C	.....	1550	Oil
4620	4620	3" Rd. Quenched, Tempered 1000°F.	160-170	135-145	12-20	40-50	330-360	35-38C	.....	1550	Oil
		5" Rd. Quenched, Tempered 1000°F.	145-160	125-135	10-15	40-50	300-330	31-36C	.....	1550	Oil
		6" Rd. Quenched, Tempered 1000°F.	140-150	120-130	10-15	40-50	240-320	30-35C	.....	1550	Oil
4815	4815	Natural Hot Rolled	75-85	53-63	25-35	58-68	145-180	80-87B	50	.....	.....
		Cold Drawn	90-100	75-85	15-22	50-60	190-215	91-96B	55	.....	.....
		1" Rd. Carburized 1700°F., Cooled in box, Reheated, Quenched—Core Properties	110-125	80-100	18-23	50-60	220-250	20-24C	.....	1525	Oil
4815	4815	Natural Hot Rolled	80-110	60-75	20-30	50-60	180-220	.....	50	.....	.....
		1" Rd. Carburized 1700°F., Cooled in box, Reheated, Quenched—Core Properties	115-130	80-100	15-25	45-50	240-270	24-30C	.....	1525	Oil
		Hot Rolled, Annealed	100-110	65-75	20-30	50-60	210-230	95-99B	50	.....	.....
E52100	52100	1" Rd. Carburized 1700°F., Cooled in box, Reheated, Quenched—Core Properties	140-160	120-140	14-18	45-55	300-340	33-38C	.....	1525	Oil
		Hot Rolled, Annealed	100-110	75-85	20-25	50-60	210-235	.....	45	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	180-195	65-80	10-15	35-45	375-415	40-43C	.....	1500	Oil
6150	6150	Hot Rolled, Annealed	95-110	75-85	20-30	50-60	200-230	14-21C	50	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	170-185	150-160	12-17	45-55	360-390	38-41C	55	.....	.....
		Natural Hot Rolled	90-95	55-65	18-25	45-60	160-200	85-95B	.....	.....	.....
8620	8620	Cold Drawn	90-105	65-80	15-25	40-50	185-215	90-96B	60-70	.....	.....
		1" Rd. Carburized 1700°F., Cooled in box, Reheated, Quenched—Core Properties	120-135	90-110	15-20	40-50	285-350	28-40C	.....	1550	Oil
		Natural Hot Rolled	90-120	50-70	15-25	35-50	210-260	17-27C	50-55	.....	.....
8642	8642	Hot Rolled, Heat Treated	125 Min.	105 Min.	16 Min.	50 Min.	260-320	26-33C	45-50	.....	.....
		Cold Drawn, Annealed	100-110	90-100	13-20	40-50	195-220	93-98B	65	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	150-160	130-140	15-20	50-55	325-345	34-37C	.....	1550	Oil
8645	8645	2" Rd. Quenched, Tempered 1000°F.	130-145	105-115	15-20	50-60	285-310	29-32C	.....	1550	Oil
		Natural Hot Rolled	105-125	55-75	15-25	35-50	220-270	20-28C	48-55	.....	.....
		Hot Rolled, Annealed	100-110	50-60	20-25	40-55	210-230	17-21C	54	.....	.....
8742	8742	1" Rd. Quenched, Tempered 1000°F.	140-150	110-125	15-20	45-55	300-320	30-34C	.....	1550	Oil
		3" Rd. Quenched, Tempered 1000°F.	130-140	105-115	15-20	50-60	285-310	29-32C	.....	1550	Oil
		Natural Hot Rolled	110-125	50-70	15-25	35-50	230-270	22-28C	45-50	.....	.....
8742	8742	Cold Drawn, Annealed	105-120	95-105	10-18	35-45	210-235	95-99B	60	.....	.....
		1" Rd. Quenched, Tempered 1000°F.	155-165	135-145	15-20	45-52	330-355	35-38C	.....	1550	Oil
		2" Rd. Quenched, Tempered 1000°F.	135-145	110-120	15-20	50-60	290-320	30-33C	.....	1550	Oil



# ENGINEERING INFORMATION

Table 38—Strength and Physical Properties of Various Metals

Metals and Alloys	Stress in Thousands of Pounds per Sq. Inch				Modulus of Elasticity 1,000,000 Pounds	Elongation %
	Tension Ultimate	Tension Yield Point	Compression Ultimate	Shear Ultimate		
Aluminum, Type 1100-0, Annealed	13	5		9	10	45
Aluminum, Type 1100-H18, Hard	24	22		13	10	15
Aluminum, Type 3003-0, Annealed	16	6		11	10	40
Aluminum, Type 3003-H18, Hard	29	27		16	10	10
Aluminum, Type 5052-0, Annealed	28	13		18	10.2	30
Aluminum, Type 5052-H38, Hard	42	37		24	10.2	8
Aluminum, Type 5056-0, Annealed	42	22		26	10.3	35
Aluminum, Type 2014-0, Annealed	27	14		18	10.6	18
Aluminum, Type 2014-T4, Heat Treated	62	42		38	10.6	20
Aluminum, Type C4A, Casting, Solution Heat Treat	32	16	16A	24		8.5
Aluminum, Type S5C, As Die Cast	30	16	16A	19		9
Brass, Admiralty, Annealed	53	22			16	65
Brass, Aluminum, Annealed	60	27			16	55
Brass, Cartridge, 30% Zn, Annealed	44	11		32	16	66
Brass, Cartridge, 30% Zn, Hard	76	63		44	16	8
Brass, Naval, Annealed	57	25		40	15	47
Brass, Naval, Leaded, Annealed	57	25		36	15	40
Brass, Red, 15% Zn, Annealed	39	10		31	17	48
Brass, Red, 15% Zn, Hard	70	57		42	17	5
Brass, Red, Leaded, Cast, Grade 4A	33.46	17.24	10-12A		9.1-14.8	20-35
Brass, Red, Leaded, Cast, Grade 4B	30.38	12.17	11-12A			15-27
Brass, Semi-Red, Leaded, Cast, Grade 5A	29.39	13.17			7.7-14.3	18-30
Brass, Semi-Red, Leaded, Cast, Grade 5B	30.40	12.16	8-10A		10-14	20-35
Brass, Yellow, 35% Zn, Annealed	45	14		32	15	65
Brass, Yellow, 35% Zn, Hard	74	60		43	15	8
Bronze, Aluminum, As Cast	67.95	27.45			15-18	5.35
Bronze, Commercial, 10% Zn, Annealed	37	10		28	17	45
Bronze, Manganese, Annealed	65	30		42	15	33
Bronze, Phosphor, Annealed	40.66	14.24			16-17	48-70
Bronze, Tin, High Leaded, Cast	23.38	11.22	12-16A		8.5-13	7-20
Bronze, Tin, Leaded, Cast	33.48	16.26	9-15A		10.6-16	15-40
Copper, Beryllium, Annealed	60-80	25-35		50-60	17	35-50
Copper, Electrolytic, Tough Pitch, Annealed	32	10		22	19	45
Inconel, Cast	65-90				23	10-20
Inconel, Shapes, Plate, Etc., Annealed	80-120	80-100			25	1-3
Inconel, X, Shapes, Plate, Etc., Annealed	110-130	30-45			31	35-55
Iron, Cast, Class 30	30-34	45-65			31	40-55
Iron, Cast, Class 35	35-40		115	44	15	
Iron, Ingot, Hot Rolled	44	23	125	43	16	
Iron, Malleable, Class 32510	50	33	90	46	25	10-18
Iron, Malleable, Class 35018	55	37	90	51	25	18-25
Iron, Nodular (Ductile) Class 60-45-10	60	45	120		22-25	10-25
Iron, Nodular (Ductile) Class 80-60-3	80	60	160		22-25	3-10
Iron, Pearlitic, Malleable	60-90	40-70			28	3-12
Iron, Wrought, Hot Rolled	34-47	23-24			29	7-35
Lead, Hard, Rolled	4.0-4.6					31-48
Magnesium Alloy, Extruded, ASTM M1A	26-28	23-28	10-13	16	6.5	8-11
Magnesium Alloy, Extruded, ASTM AZ61A-F	40-45	22-32	15-21	21	6.5	15-16
Magnesium Alloy, Cast, ASTM M1B	14	4.5		11	6.5	5
Magnesium Alloy, Cast, ASTM AZ92A	24	14		19	6.5	2
Magnesium Alloy, Cast, ASTM AZ91A	36	23		20	6.5	4
Monel, Cast	65-90	32-45			23	20-50
Monel, S, Cast	120-145	80-130			24.2	1-4
Monel, Shapes, Plate, Etc., Annealed	70-85	25-45			26	35-50
Monel, K, Shapes, Plate, Etc., Annealed	90-105	40-65		26	25-45	35-55
Muntz Metal, Cu 59-63%, Zn balance	54	21		40	15	45
Nickel, Cast	50-65	15-30			21.5	15-30
Nickel, Silver, Annealed	49-63	18-30			17-18	35-60
Steel, Cast Carbon, Class 70,000 Normalized	70	38			30	28
Steel, Cast Low Alloy, Class 100,000, Normalized and Tempered	100	68			29-30	20
Steel, Cast Low Alloy, Class 120,000, Quenched and Tempered	120	95			29-30	16
Steel, Cast Low Alloy, Class 200,000, Quenched and Tempered	200	170			29-30	5
Steel, Rounds			See page	G9-26		
Steel, Sheets	48	25			29-30	18-27
Steel, Stainless, Austenitic, Types 304, 316	85	35			28	55-60
Steel, Stainless, Martensitic, Type 416	75	40			29	30
Steel, Structural, Bridge and Building, ASTM A7	60-72	33	33A	45-54	29-30	21
Steel, Structural, High Strength, Low Alloy, ASTM A242	63-70	42-50	42-50A	47-53	29-30	18-24
Zinc, Die Cast Alloy XXIII	41		60A	31		10

† When hardened, strength values are higher, elongation less. ▲ Compression yield point.

# ENGINEERING INFORMATION

**Table 39—Coefficients of Friction “f”**

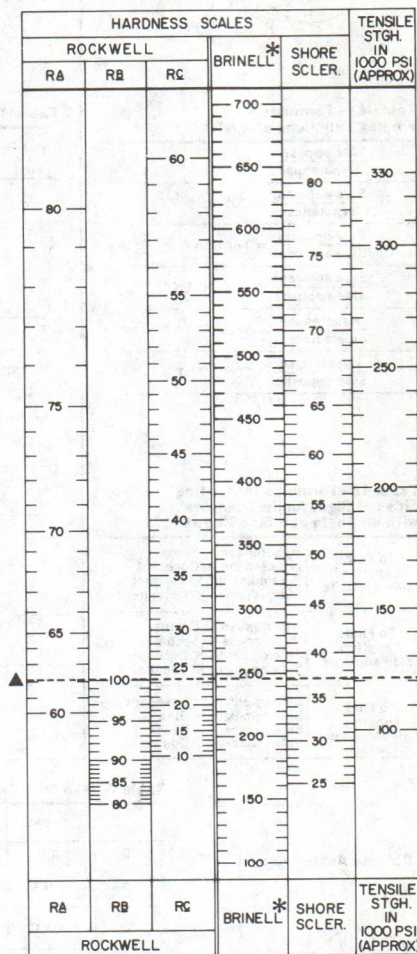
Material	Static		Sliding	
	Dry	Lubri-cated	Dry	Lubri-cated
Aluminum on aluminum	1.35			
Canvas belt on rubber lagging	0.30			
Canvas belt, stitched, on steel			0.20	0.10
Canvas belt, woven, on steel			0.22	0.10
Cast iron on asbestos, fabric brake material			0.35-0.40	
Cast iron on brass			0.30	
Cast iron on bronze			0.22	0.07-0.08
Cast iron on cast iron	1.10		0.15	0.06-0.10
Cast iron on copper	1.05		0.29	
Cast iron on lead			0.43	
Cast iron on leather	.6			0.13-0.36
Cast iron on oak (parallel)			0.30-0.50	0.07-0.20
Cast iron on magnesium			0.25	
Cast iron on steel, mild		0.18	0.23	0.133
Cast iron on tin			0.32	
Cast iron on zinc	0.85		0.21	
Earth on earth	0.25-1.0			
Glass on glass	0.94		0.40	
Hemp rope on wood	0.50-0.80		0.40-0.70	
Nickel on nickel	1.10		0.53	0.12
Oak on leather (parallel)	0.50-0.60		0.30-0.50	
Oak on oak (parallel)	0.62		0.48	0.16
Oak on oak (perpendicular)	0.54		0.32	0.07
Rubber tire on pavement	0.8-0.9	0.6-0.7 *	0.75-0.85	0.5-0.7 *
Steel on ice	0.03		0.01	
Steel, hard, on babbitt	0.42-0.70	0.08-0.25	0.33-0.35	0.05-0.16
Steel, hard, on steel, hard	0.78	0.11-0.23	0.42	0.03-0.12
Steel, mild, on aluminum	0.61		0.47	
Steel, mild, on brass	0.51		0.44	
Steel, mild, on bronze			0.34	0.17
Steel, mild, on copper	0.53		0.36	0.18
Steel, mild, on steel, mild	0.74		0.57	0.09-0.19
Stone masonry on concrete	0.76			
Stone masonry on ground	0.65			
Wrought iron on bronze	0.19	0.07-0.08	0.18	
Wrought iron on wrought iron		0.11	0.44	0.08-0.10

\* Wet pavement

**Table 40—U.S. Standard Sheet Metal Gages**

Gage No.	Thickness in Decimal Parts of an Inch	Gage No.	Thickness in Decimal Parts of an Inch
1	.28125	20	.03590
2	.26562	21	.03290
3	.23910	22	.02990
4	.22420	23	.02690
5	.20920	24	.02390
6	.19430	25	.02090
7	.17930	26	.01790
8	.16440	27	.01640
9	.14950	28	.01490
10	.13450	29	.01350
11	.11960	30	.01200
12	.10460	31	.01094
13	.08970	32	.01016
14	.07470	33	.00938
15	.06730	34	.00859
16	.05980	35	.00781
17	.05380	36	.00703
18	.04780	37	.00664
19	.04180	38	.00625

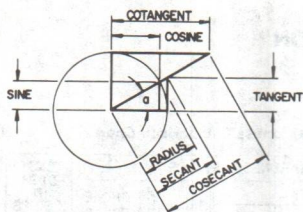
**Hardness Comparison Chart**



\* Shaded area indicates values may vary depending on type of ball used.

▲ Example: A Brinell number of 245 is equal to 62 Rockwell "A", 100 Rockwell "B", 23 Rockwell "C", 37 Shore with a tensile of approximately 120,000 psi.





**Table 41—Formulas for Finding Functions of Angles**

Side opposite Hypotenuse	= SINE
Side adjacent Hypotenuse	= COSINE
Side opposite Side adjacent	= TANGENT
Side adjacent Side opposite	= COTANGENT
Hypotenuse Side adjacent	= SECANT
Hypotenuse Side opposite	= COSECANT

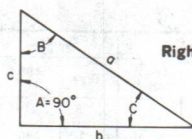
**Table 42—Formulas for Finding Sides of Right Angle Triangles with an Angle and Side Known**

To Find: Length of side opposite	$\left\{ \begin{array}{l} \text{Hypotenuse} \times \text{Sine} \\ \text{Hypotenuse} \times \text{Cosecant} \\ \text{Side adjacent} \times \text{Tangent} \\ \text{Side adjacent} \times \text{Cotangent} \end{array} \right.$
To Find: Length of side adjacent	$\left\{ \begin{array}{l} \text{Hypotenuse} \times \text{Cosine} \\ \text{Hypotenuse} \times \text{Secant} \\ \text{Side opposite} \times \text{Cotangent} \\ \text{Side opposite} \times \text{Tangent} \end{array} \right.$
To Find: Length of Hypotenuse	$\left\{ \begin{array}{l} \text{Side opposite} \times \text{Cosecant} \\ \text{Side opposite} \times \text{Sine} \\ \text{Side adjacent} \times \text{Secant} \\ \text{Side adjacent} \times \text{Cosine} \end{array} \right.$

## ENGINEERING INFORMATION

### Trigonometric Formulae

(See pages that follow for functions)



**Right Angle Triangle**

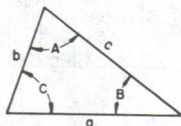
**Table 43—To Find Angles and Sides of Right Angle Triangles**

To Find Angles		To Find Sides	
To Find:	Formulas	To Find:	Formulas
C	$\frac{c}{a} = \text{Sine } C$	a	$\sqrt{b^2 + c^2}$
C	$\frac{b}{a} = \text{Cosine } C$	a	$c \times \text{Cosec. } C$
C	$\frac{c}{b} = \text{Tan. } C$	a	$c \times \text{Secant } B$
C	$\frac{b}{c} = \text{Cotan. } C$	a	$b \times \text{Cosec. } B$
C	$\frac{a}{b} = \text{Secant } C$	a	$b \times \text{Secant } C$
C	$\frac{a}{c} = \text{Cosec. } C$	b	$\sqrt{a^2 - c^2}$
B	$\frac{b}{a} = \text{Sine } B$	b	$a \times \text{Sine } B$
B	$\frac{c}{a} = \text{Cosine } B$	b	$a \times \text{Cos. } C$
B	$\frac{b}{c} = \text{Tan. } B$	b	$c \times \text{Tan. } B$
B	$\frac{c}{b} = \text{Cotan. } B$	b	$c \times \text{Cot. } C$
B	$\frac{a}{c} = \text{Secant } B$	c	$\sqrt{a^2 - b^2}$
B	$\frac{a}{b} = \text{Cosec. } B$	c	$a \times \text{Cos. } B$
		c	$a \times \text{Sine } C$
		c	$b \times \text{Cot. } B$
		c	$b \times \text{Tan. } C$

**Table 44—To Find Angles and Sides of Oblique Angle Triangles**

To Find:	Known	Formulas	To Find:	Known	Formulas
C	A, B	$180^\circ - (A + B)$	A	B, C	$180^\circ - (B + C)$
b	a, B, A	$\frac{a \times \text{Sin. } B}{\text{Sin. } A}$	Cos. A	a, b, c	$\frac{b^2 + c^2 - a^2}{2bc}$
c	a, A, C	$\frac{a \times \text{Sin. } C}{\text{Sin. } A}$	Sin. C	c, A, a	$\frac{c \times \text{Sin. } A}{a}$
Tan. A	a, C, b	$\frac{a \times \text{Sin. } C}{b - (a \times \text{Cos. } C)}$	Cot. B	a, c, b	$\frac{a \times \text{Cosec. } C}{b} - \text{Cot. } C$
B	A, C	$180^\circ - (A + C)$	c	b, C, B	$b \times \text{Sin. } C \times \text{Cosec. } B$
Sin. B	b, A, a	$\frac{b \times \text{Sin. } A}{a}$			

**Oblique Angle Triangle**







**Table 46—Trigonometric Functions (Continued)**

**Note:** For functions from  $45^{\circ}-0'$  to  $68^{\circ}$  read from bottom of table upward.



# ENGINEERING INFORMATION

Table 47—Circumferences and Areas of Circles ( $\frac{1}{16}$ —23  $\frac{3}{4}$  Diameters)

Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area
$\frac{1}{16}$	0.0491	0.0002	3	9.4248	7.0686	8	25.1327	50.265	16	50.2655	201.06
$\frac{1}{8}$	0.0982	0.0008	$\frac{1}{16}$	9.6211	7.3662	$\frac{1}{8}$	25.5254	51.849	$\frac{1}{8}$	50.6582	204.22
$\frac{1}{4}$	0.1964	0.0031	$\frac{1}{8}$	9.8175	7.6699	$\frac{1}{4}$	25.9181	53.456	$\frac{1}{4}$	51.0509	207.39
$\frac{3}{16}$	0.2945	0.0059	$\frac{1}{4}$	10.0138	7.9798	$\frac{3}{16}$	26.3108	55.088	$\frac{3}{16}$	51.4436	210.60
$\frac{1}{2}$	0.3927	0.0123	$\frac{1}{2}$	10.2102	8.2958	$\frac{1}{2}$	26.7035	56.745	$\frac{1}{2}$	51.8363	213.82
$\frac{5}{16}$	0.4909	0.0192	$\frac{3}{16}$	10.4065	8.6179	$\frac{5}{16}$	27.0962	58.426	$\frac{5}{16}$	52.2290	217.08
$\frac{3}{8}$	0.5890	0.0276	$\frac{1}{2}$	10.6029	8.9462	$\frac{3}{8}$	27.4889	60.132	$\frac{3}{8}$	52.6217	220.35
$\frac{7}{16}$	0.6872	0.0376	$\frac{3}{16}$	10.7992	9.2806	$\frac{7}{16}$	27.8816	61.862	$\frac{7}{16}$	53.0144	223.65
$\frac{1}{4}$	0.7854	0.0491	$\frac{1}{2}$	10.9956	9.6211	9	28.2743	63.617	17	53.4071	226.98
$\frac{5}{16}$	0.8836	0.0621	$\frac{5}{16}$	11.1919	9.9678	$\frac{1}{4}$	28.6670	65.397	$\frac{1}{4}$	53.7998	230.33
$\frac{3}{8}$	0.9817	0.0767	$\frac{3}{8}$	11.3883	10.321	$\frac{1}{2}$	29.0597	67.201	$\frac{1}{2}$	54.1925	233.71
$\frac{7}{16}$	1.0799	0.0928	$\frac{1}{2}$	11.5846	10.680	$\frac{3}{8}$	29.4524	69.029	$\frac{3}{8}$	54.5852	237.10
$\frac{1}{2}$	1.1781	0.1105	$\frac{3}{16}$	11.7810	11.045	$\frac{1}{2}$	29.8451	70.882	$\frac{1}{2}$	54.9779	240.53
$\frac{5}{8}$	1.2763	0.1296	$\frac{1}{4}$	11.9773	11.416	$\frac{5}{8}$	30.2378	72.760	$\frac{5}{8}$	55.3706	243.98
$\frac{3}{4}$	1.3745	0.1503	$\frac{1}{2}$	12.1737	11.793	$\frac{3}{4}$	30.6305	74.662	$\frac{3}{4}$	55.7633	247.45
$\frac{7}{8}$	1.4726	0.1726	$\frac{3}{16}$	12.3700	12.177	$\frac{7}{8}$	31.0232	76.589	$\frac{7}{8}$	56.1560	250.95
$\frac{1}{8}$	1.5708	0.1964	4	12.5664	12.566	10	31.4159	78.540	18	56.5487	254.47
$\frac{3}{16}$	1.6690	0.2217	$\frac{1}{8}$	12.7627	12.962	$\frac{1}{8}$	31.8086	80.516	$\frac{1}{8}$	56.9414	258.02
$\frac{1}{4}$	1.7672	0.2485	$\frac{1}{16}$	12.9591	13.364	$\frac{1}{4}$	32.2013	82.516	$\frac{1}{4}$	57.3341	261.59
$\frac{5}{16}$	1.8653	0.2769	$\frac{1}{4}$	13.1554	13.772	$\frac{3}{16}$	32.5940	84.541	$\frac{3}{16}$	57.7268	265.18
$\frac{3}{8}$	1.9635	0.3068	$\frac{1}{2}$	13.3518	14.185	$\frac{1}{2}$	32.9867	86.590	$\frac{1}{2}$	58.1195	268.80
$\frac{7}{16}$	2.0617	0.3382	$\frac{3}{16}$	13.5481	14.607	$\frac{5}{16}$	33.3794	88.664	$\frac{5}{16}$	58.5122	272.45
$\frac{1}{2}$	2.1598	0.3712	$\frac{1}{2}$	13.7445	15.033	$\frac{3}{8}$	33.7721	90.763	$\frac{3}{8}$	58.9049	276.12
$\frac{5}{8}$	2.2580	0.4057	$\frac{3}{16}$	13.9408	15.466	$\frac{7}{16}$	34.1648	92.886	$\frac{7}{16}$	59.2976	279.81
$\frac{3}{4}$	2.3562	0.4418	$\frac{1}{2}$	14.1372	15.904	11	34.5575	95.033	19	59.6903	283.53
$\frac{7}{8}$	2.4544	0.4794	$\frac{5}{16}$	14.3335	16.349	$\frac{1}{8}$	34.9502	97.205	$\frac{1}{8}$	60.0830	287.27
$\frac{1}$	2.5525	0.5185	$\frac{3}{8}$	14.5299	16.800	$\frac{1}{4}$	35.3429	99.402	$\frac{1}{4}$	60.4757	291.04
$\frac{1}{8}$	2.6507	0.5591	$\frac{1}{16}$	14.7262	17.257	$\frac{3}{16}$	35.7356	101.62	$\frac{3}{16}$	60.8684	294.83
$\frac{1}{4}$	2.7489	0.6013	$\frac{1}{4}$	14.9226	17.721	$\frac{1}{2}$	36.1283	103.87	$\frac{1}{2}$	61.2611	298.65
$\frac{3}{8}$	2.8471	0.6450	$\frac{1}{2}$	15.1189	18.190	$\frac{5}{16}$	36.5210	106.14	$\frac{5}{16}$	61.6538	302.49
$\frac{7}{16}$	2.9452	0.6903	$\frac{3}{16}$	15.3153	18.665	$\frac{3}{8}$	36.9137	108.43	$\frac{3}{8}$	62.0465	306.35
$\frac{1}{2}$	3.0434	0.7371	$\frac{1}{16}$	15.5116	19.147	$\frac{7}{16}$	37.3064	110.75	$\frac{7}{16}$	62.4392	310.24
$\frac{1}{8}$	3.1416	0.7854	5	15.7080	19.635	12	37.6991	113.10	20	62.8319	314.16
$\frac{3}{16}$	3.3379	0.8866	$\frac{1}{8}$	15.9043	20.129	$\frac{1}{8}$	38.0918	115.47	$\frac{1}{8}$	63.2246	318.10
$\frac{1}{4}$	3.5343	0.9940	$\frac{1}{16}$	16.1007	20.629	$\frac{1}{4}$	38.4845	117.86	$\frac{1}{4}$	63.6173	322.06
$\frac{5}{16}$	3.7306	1.1075	$\frac{1}{4}$	16.2970	21.135	$\frac{3}{16}$	38.8772	120.28	$\frac{3}{16}$	64.0100	326.05
$\frac{3}{8}$	3.9270	1.2272	$\frac{1}{2}$	16.4934	21.648	$\frac{1}{2}$	39.2699	122.72	$\frac{1}{2}$	64.4026	330.06
$\frac{7}{16}$	4.1233	1.3530	$\frac{3}{16}$	16.6897	22.166	$\frac{5}{16}$	39.6626	125.19	$\frac{5}{16}$	64.7953	334.10
$\frac{1}{2}$	4.3197	1.4849	$\frac{1}{2}$	16.8861	22.691	$\frac{3}{8}$	40.0553	127.68	$\frac{3}{8}$	65.1880	338.16
$\frac{5}{8}$	4.5160	1.6230	$\frac{3}{16}$	17.0824	23.221	$\frac{7}{16}$	40.4480	130.19	$\frac{7}{16}$	65.5807	342.25
$\frac{3}{4}$	4.7124	1.7671	$\frac{1}{2}$	17.2788	23.758	13	40.8407	132.73	21	65.9734	346.36
$\frac{7}{8}$	4.9087	1.9175	$\frac{5}{16}$	17.4751	24.301	$\frac{1}{8}$	41.2334	135.30	$\frac{1}{8}$	66.3661	350.50
$\frac{1}$	5.1051	2.0739	$\frac{3}{8}$	17.6715	24.850	$\frac{1}{4}$	41.6261	137.89	$\frac{1}{4}$	66.7588	354.66
$\frac{1}{8}$	5.3014	2.2365	$\frac{1}{16}$	17.8678	25.406	$\frac{3}{16}$	42.0188	140.50	$\frac{3}{16}$	67.1512	358.84
$\frac{1}{4}$	5.4978	2.4053	$\frac{1}{4}$	18.0642	25.967	$\frac{1}{2}$	42.4115	143.14	$\frac{1}{2}$	67.5445	363.05
$\frac{3}{8}$	5.6941	2.5802	$\frac{1}{2}$	18.2605	26.535	$\frac{5}{16}$	42.8042	145.80	$\frac{5}{16}$	67.9369	367.28
$\frac{7}{16}$	5.8905	2.7612	$\frac{3}{16}$	18.4569	27.100	$\frac{3}{8}$	43.1969	148.49	$\frac{3}{8}$	68.3296	371.54
$\frac{1}{2}$	6.0868	2.9483	$\frac{1}{16}$	18.6532	27.688	$\frac{7}{16}$	43.5896	151.20	$\frac{7}{16}$	68.7223	375.83
$\frac{1}{8}$	6.2832	3.1416	6	18.8496	28.274	14	43.9823	153.94	22	69.1150	380.13
$\frac{3}{16}$	6.4795	3.3410	$\frac{1}{8}$	19.2423	29.465	$\frac{1}{8}$	44.3750	156.70	$\frac{1}{8}$	69.5077	384.46
$\frac{1}{4}$	6.6759	3.5466	$\frac{1}{16}$	19.6350	30.680	$\frac{1}{4}$	44.7677	159.48	$\frac{1}{4}$	69.9004	388.82
$\frac{5}{16}$	6.8722	3.7593	$\frac{1}{4}$	20.0277	31.919	$\frac{3}{16}$	45.1604	162.30	$\frac{3}{16}$	70.2931	393.20
$\frac{3}{8}$	7.0686	3.9761	$\frac{1}{2}$	20.4204	33.183	$\frac{1}{2}$	45.5531	165.13	$\frac{1}{2}$	70.6858	397.61
$\frac{7}{16}$	7.2649	4.2000	$\frac{3}{16}$	20.8131	34.472	$\frac{5}{16}$	45.9458	167.99	$\frac{5}{16}$	71.0785	402.04
$\frac{1}{2}$	7.4613	4.4301	$\frac{1}{2}$	21.2058	35.785	$\frac{3}{8}$	46.3385	170.87	$\frac{3}{8}$	71.4712	406.49
$\frac{5}{8}$	7.6576	4.6664	$\frac{3}{16}$	21.5984	37.122	$\frac{7}{16}$	46.7312	173.78	$\frac{7}{16}$	71.8639	410.97
$\frac{3}{4}$	7.8540	4.9087	7	21.9911	38.485	15	47.1239	176.71	23	72.2566	415.48
$\frac{7}{8}$	8.0503	5.1572	$\frac{1}{8}$	22.3838	39.871	$\frac{1}{8}$	47.5166	179.67	$\frac{1}{8}$	72.6493	420.00
$\frac{1}$	8.2467	5.4119	$\frac{1}{16}$	22.7765	41.282	$\frac{1}{4}$	47.9093	182.65	$\frac{1}{4}$	73.0420	424.56
$\frac{1}{8}$	8.4430	5.6727	$\frac{1}{4}$	23.1692	42.718	$\frac{3}{16}$	48.3020	185.66	$\frac{3}{16}$	73.4347	429.13
$\frac{1}{4}$	8.6394	5.9396	$\frac{1}{2}$	23.5619	44.179	$\frac{1}{2}$	48.6947	188.69	$\frac{1}{2}$	73.8274	433.74
$\frac{3}{8}$	8.8357	6.2126	$\frac{3}{16}$	23.9546	45.664	$\frac{5}{16}$	49.0874	191.75	$\frac{5}{16}$	74.2201	438.36
$\frac{7}{16}$	9.0321	6.4918	$\frac{1}{2}$	24.3473	47.173	$\frac{3}{8}$	49.4801	194.83	$\frac{3}{8}$	74.6128	443.01
$\frac{1}{2}$	9.2284	6.7771	$\frac{3}{16}$	24.7400	48.707	$\frac{7}{16}$	49.8728	197.93	$\frac{7}{16}$	75.0055	447.69



# ENGINEERING INFORMATION

**Table 48—Circumferences and Areas of Circles (24–55" Diameters)**

Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area
<b>24</b>	75.3982	452.39	<b>32</b>	100.531	804.25	<b>40</b>	125.664	1256.6	<b>48</b>	150.796	1809.6
1/8	75.7909	457.11	1/8	100.924	810.54	1/8	126.056	1264.5	1/8	151.189	1819.0
1/4	76.1836	461.86	1/4	101.316	816.86	1/4	126.449	1272.4	1/4	151.582	1828.5
3/8	76.5763	466.64	3/8	101.709	823.21	3/8	126.842	1280.3	3/8	151.975	1837.9
1/2	76.9690	471.44	1/2	102.102	829.58	1/2	127.235	1288.2	1/2	152.367	1847.5
5/8	77.3617	476.26	5/8	102.494	835.97	5/8	127.627	1296.2	5/8	152.760	1857.0
3/4	77.7544	481.11	3/4	102.887	842.39	3/4	128.020	1304.2	3/4	153.153	1866.5
7/8	78.1471	485.98	7/8	103.280	848.83	7/8	128.413	1312.2	7/8	153.545	1876.1
<b>25</b>	78.5398	490.87	<b>33</b>	103.673	855.30	<b>41</b>	128.805	1320.3	<b>49</b>	153.938	1885.7
1/8	78.9325	495.79	1/8	104.065	861.79	1/8	129.198	1328.3	1/8	154.331	1895.4
1/4	79.3252	500.74	1/4	104.458	868.31	1/4	129.591	1336.4	1/4	154.723	1905.0
3/8	79.7179	505.71	3/8	104.851	874.85	3/8	129.983	1344.5	3/8	155.116	1914.7
1/2	80.1106	510.71	1/2	105.243	881.41	1/2	130.376	1352.7	1/2	155.509	1924.4
5/8	80.5033	515.72	5/8	105.636	888.00	5/8	130.769	1360.8	5/8	155.902	1934.2
3/4	80.8960	520.77	3/4	106.029	894.62	3/4	131.161	1369.0	3/4	156.294	1943.9
7/8	81.2887	525.84	7/8	106.421	901.26	7/8	131.554	1377.2	7/8	156.687	1953.7
<b>26</b>	81.6814	530.93	<b>34</b>	106.814	907.92	<b>42</b>	131.947	1385.4	<b>50</b>	157.080	1963.5
1/8	82.0741	536.05	1/8	107.207	914.61	1/8	132.340	1393.7	1/8	157.472	1973.3
1/4	82.4668	541.19	1/4	107.600	921.32	1/4	132.732	1402.0	1/4	157.865	1983.2
3/8	82.8595	546.35	3/8	107.992	928.06	3/8	133.125	1410.3	3/8	158.258	1993.1
1/2	83.2522	551.55	1/2	108.385	934.82	1/2	133.518	1418.6	1/2	158.650	2003.0
5/8	83.6449	556.76	5/8	108.778	941.61	5/8	133.910	1427.0	5/8	159.043	2012.9
3/4	84.0376	562.00	3/4	109.170	948.42	3/4	134.303	1435.4	3/4	159.436	2022.8
7/8	84.4303	567.27	7/8	109.563	955.25	7/8	134.696	1443.8	7/8	159.829	2032.8
<b>27</b>	84.8230	572.56	<b>35</b>	109.956	962.11	<b>43</b>	135.088	1452.2	<b>51</b>	160.221	2042.8
1/8	85.2157	577.87	1/8	110.348	969.00	1/8	135.481	1460.7	1/8	160.614	2052.8
1/4	85.6084	583.21	1/4	110.741	975.91	1/4	135.874	1469.1	1/4	161.007	2062.9
3/8	86.0011	588.57	3/8	111.134	982.84	3/8	136.267	1477.6	3/8	161.399	2073.0
1/2	86.3938	593.96	1/2	111.527	989.80	1/2	136.659	1486.2	1/2	161.792	2083.1
5/8	86.7865	599.37	5/8	111.919	996.87	5/8	137.052	1494.7	5/8	162.185	2093.2
3/4	87.1792	604.81	3/4	112.312	1003.8	3/4	137.445	1503.3	3/4	162.577	2103.3
7/8	87.5719	610.27	7/8	112.705	1010.8	7/8	137.837	1511.9	7/8	162.970	2113.5
<b>28</b>	87.965	615.75	<b>36</b>	113.097	1017.9	<b>44</b>	138.230	1520.5	<b>52</b>	163.363	2123.7
1/8	88.357	621.26	1/8	113.490	1025.0	1/8	138.623	1529.2	1/8	163.756	2133.9
1/4	88.750	626.80	1/4	113.883	1032.1	1/4	139.015	1537.9	1/4	164.148	2144.2
3/8	89.143	632.36	3/8	114.275	1039.2	3/8	139.408	1546.6	3/8	164.541	2154.5
1/2	89.535	637.94	1/2	114.668	1046.3	1/2	139.801	1555.3	1/2	164.934	2164.8
5/8	89.928	643.55	5/8	115.061	1053.5	5/8	140.194	1564.0	5/8	165.326	2175.1
3/4	90.321	649.18	3/4	115.454	1060.7	3/4	140.586	1572.8	3/4	165.719	2185.4
7/8	90.713	654.84	7/8	115.846	1068.0	7/8	140.979	1581.6	7/8	166.112	2195.8
<b>29</b>	91.106	660.52	<b>37</b>	116.239	1075.2	<b>45</b>	141.372	1590.4	<b>53</b>	166.504	2206.2
1/8	91.499	666.23	1/8	116.632	1082.5	1/8	141.764	1599.3	1/8	166.897	2216.6
1/4	91.892	671.96	1/4	117.024	1089.8	1/4	142.157	1608.2	1/4	167.290	2227.0
3/8	92.284	677.71	3/8	117.417	1097.1	3/8	142.550	1617.0	3/8	167.683	2237.5
1/2	92.677	683.49	1/2	117.810	1104.5	1/2	142.942	1626.0	1/2	168.075	2248.0
5/8	93.070	689.30	5/8	118.202	1111.8	5/8	143.335	1634.9	5/8	168.468	2258.5
3/4	93.462	695.13	3/4	118.596	1119.2	3/4	143.728	1643.9	3/4	168.861	2269.1
7/8	93.855	700.98	7/8	118.988	1126.7	7/8	144.121	1652.9	7/8	169.253	2279.6
<b>30</b>	94.248	706.86	<b>38</b>	119.381	1134.1	<b>46</b>	144.513	1661.9	<b>54</b>	169.646	2290.2
1/8	94.640	712.70	1/8	119.773	1141.0	1/8	144.906	1670.9	1/8	170.039	2300.8
1/4	95.033	718.69	1/4	120.166	1149.1	1/4	145.299	1680.0	1/4	170.431	2311.5
3/8	95.426	724.64	3/8	120.559	1156.6	3/8	145.691	1689.1	3/8	170.824	2322.1
1/2	95.819	730.62	1/2	120.951	1164.2	1/2	146.084	1698.2	1/2	171.217	2332.8
5/8	96.211	736.62	5/8	121.344	1171.7	5/8	146.477	1707.4	5/8	171.609	2343.5
3/4	96.604	742.64	3/4	121.737	1179.3	3/4	146.869	1716.5	3/4	172.002	2354.3
7/8	96.997	748.69	7/8	122.129	1186.9	7/8	147.262	1725.7	7/8	172.395	2365.0
<b>31</b>	97.389	754.77	<b>39</b>	122.522	1194.6	<b>47</b>	147.655	1734.9	<b>55</b>	172.788	2375.8
1/8	97.782	760.87	1/8	122.915	1202.3	1/8	148.048	1744.2	1/8	173.180	2386.6
1/4	98.175	766.99	1/4	123.308	1210.0	1/4	148.440	1753.5	1/4	173.573	2397.5
3/8	98.567	773.14	3/8	123.700	1217.7	3/8	148.833	1762.7	3/8	173.966	2408.3
1/2	98.960	779.31	1/2	124.093	1225.4	1/2	149.226	1772.1	1/2	174.358	2419.2
5/8	99.353	785.51	5/8	124.486	1233.2	5/8	149.618	1781.4	5/8	174.751	2430.2
3/4	99.746	791.73	3/4	124.878	1241.0	3/4	150.011	1790.8	3/4	175.144	2441.1
7/8	100.138	797.98	7/8	125.271	1248.8	7/8	150.404	1800.1	7/8	175.536	2452.0

# ENGINEERING INFORMATION

**Table 49—Circumferences and Areas of Circles (56—87% Diameters)**

Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area
<b>56</b>	175.929	2463.0	<b>64</b>	201.062	3217.0	<b>72</b>	226.195	4071.5	<b>80</b>	251.327	5026.5
1/8	176.322	2474.0	1/8	201.455	3229.6	1/8	226.587	4085.7	1/8	251.720	5042.3
1/4	176.715	2485.0	1/4	201.847	3242.2	1/4	226.980	4099.8	1/4	252.113	5058.0
3/8	177.107	2496.1	3/8	202.240	3254.8	3/8	227.373	4114.0	3/8	252.506	5073.8
1/2	177.500	2507.2	1/2	202.633	3267.5	1/2	227.765	4128.2	1/2	252.898	5089.6
5/8	177.893	2518.3	5/8	203.025	3280.1	5/8	228.158	4142.5	5/8	253.291	5105.4
3/4	178.285	2529.4	3/4	203.418	3292.8	3/4	228.551	4156.8	3/4	253.684	5121.2
7/8	178.678	2540.6	7/8	203.811	3305.6	7/8	228.944	4171.1	7/8	254.076	5137.1
<b>57</b>	179.071	2551.8	<b>65</b>	204.204	3318.3	<b>73</b>	229.336	4185.4	<b>81</b>	254.469	5153.0
1/8	179.463	2563.0	1/8	204.596	3331.1	1/8	229.729	4199.7	1/8	254.862	5168.9
1/4	179.856	2574.2	1/4	204.989	3343.9	1/4	230.122	4214.1	1/4	255.254	5184.9
3/8	180.249	2585.4	3/8	205.382	3356.7	3/8	230.514	4228.5	3/8	255.647	5200.8
1/2	180.642	2596.7	1/2	205.774	3369.6	1/2	230.907	4242.9	1/2	256.040	5216.8
5/8	181.034	2608.0	5/8	206.167	3382.4	5/8	231.300	4257.4	5/8	256.433	5232.8
3/4	181.427	2619.4	3/4	206.560	3395.3	3/4	231.692	4271.8	3/4	256.825	5248.9
7/8	181.820	2630.7	7/8	206.952	3408.2	7/8	232.085	4286.3	7/8	257.218	5264.9
<b>58</b>	182.212	2642.1	<b>66</b>	207.345	3421.2	<b>74</b>	232.478	4300.8	<b>82</b>	257.611	5281.0
1/8	182.605	2653.5	1/8	207.738	3434.2	1/8	232.871	4315.4	1/8	258.003	5297.1
1/4	182.998	2664.9	1/4	208.131	3447.2	1/4	233.263	4329.9	1/4	258.396	5313.3
3/8	183.390	2676.4	3/8	208.523	3460.2	3/8	233.656	4344.5	3/8	258.789	5329.4
1/2	183.783	2687.8	1/2	208.916	3473.2	1/2	234.049	4359.2	1/2	259.181	5345.6
5/8	184.176	2699.3	5/8	209.309	3486.3	5/8	234.441	4373.8	5/8	259.574	5361.8
3/4	184.569	2710.9	3/4	209.701	3499.4	3/4	234.834	4388.5	3/4	259.967	5378.1
7/8	184.961	2722.4	7/8	210.094	3512.5	7/8	235.227	4403.1	7/8	260.359	5394.3
<b>59</b>	185.354	2734.0	<b>67</b>	210.487	3525.7	<b>75</b>	235.619	4417.9	<b>83</b>	260.752	5410.6
1/8	185.747	2745.6	1/8	210.879	3538.8	1/8	236.012	4432.6	1/8	261.145	5426.9
1/4	186.139	2757.2	1/4	211.272	3552.0	1/4	236.405	4447.4	1/4	261.538	5443.3
3/8	186.532	2768.8	3/8	211.665	3565.2	3/8	236.798	4462.2	3/8	261.930	5459.6
1/2	186.925	2780.5	1/2	212.058	3578.5	1/2	237.190	4477.0	1/2	262.323	5476.0
5/8	187.317	2792.2	5/8	212.450	3591.7	5/8	237.583	4491.8	5/8	262.716	5492.4
3/4	187.710	2803.9	3/4	212.843	3605.0	3/4	237.976	4506.7	3/4	263.108	5508.8
7/8	188.103	2815.7	7/8	213.236	3618.3	7/8	238.368	4521.5	7/8	263.501	5525.3
<b>60</b>	188.496	2827.4	<b>68</b>	213.628	3631.7	<b>76</b>	238.761	4536.5	<b>84</b>	263.894	5541.8
1/8	188.888	2839.2	1/8	214.021	3645.0	1/8	239.154	4551.4	1/8	264.286	5558.3
1/4	189.281	2851.0	1/4	214.414	3658.4	1/4	239.546	4566.4	1/4	264.679	5574.8
3/8	189.674	2862.9	3/8	214.806	3671.8	3/8	239.939	4581.3	3/8	265.072	5591.4
1/2	190.066	2874.8	1/2	215.199	3685.3	1/2	240.332	4596.3	1/2	265.465	5607.9
5/8	190.459	2886.6	5/8	215.592	3698.7	5/8	240.725	4611.4	5/8	265.857	5624.5
3/4	190.852	2898.6	3/4	215.984	3712.2	3/4	241.117	4626.4	3/4	266.250	5641.2
7/8	191.244	2910.5	7/8	216.377	3725.7	7/8	241.510	4641.5	7/8	266.643	5657.8
<b>61</b>	191.637	2922.5	<b>69</b>	216.770	3739.3	<b>77</b>	241.903	4656.6	<b>85</b>	267.035	5674.5
1/8	192.030	2934.5	1/8	217.163	3752.8	1/8	242.295	4671.8	1/8	267.428	5691.2
1/4	192.423	2946.5	1/4	217.555	3766.4	1/4	242.688	4686.9	1/4	267.821	5707.9
3/8	192.815	2958.5	3/8	217.948	3780.0	3/8	243.081	4702.1	3/8	268.213	5724.7
1/2	193.208	2970.6	1/2	218.341	3793.7	1/2	243.473	4717.3	1/2	268.606	5741.5
5/8	193.601	2982.7	5/8	218.733	3807.3	5/8	243.866	4732.5	5/8	268.999	5758.3
3/4	193.993	2994.8	3/4	219.126	3821.0	3/4	244.259	4747.8	3/4	269.392	5775.1
7/8	194.386	3006.9	7/8	219.519	3834.7	7/8	244.652	4763.1	7/8	269.784	5791.9
<b>62</b>	194.779	3019.1	<b>70</b>	219.911	3848.5	<b>78</b>	245.044	4778.4	<b>86</b>	270.177	5808.8
1/8	195.171	3031.3	1/8	220.304	3862.2	1/8	245.437	4793.7	1/8	270.570	5825.7
1/4	195.564	3043.5	1/4	220.697	3876.0	1/4	245.830	4809.0	1/4	270.962	5842.6
3/8	195.957	3055.7	3/8	221.090	3889.8	3/8	246.222	4824.4	3/8	271.355	5859.6
1/2	196.350	3068.0	1/2	221.482	3903.6	1/2	246.615	4839.8	1/2	271.748	5876.5
5/8	196.742	3080.3	5/8	221.875	3917.5	5/8	247.008	4855.2	5/8	272.140	5893.5
3/4	197.135	3092.6	3/4	222.268	3931.4	3/4	247.400	4870.7	3/4	272.533	5910.6
7/8	197.528	3104.9	7/8	222.660	3945.3	7/8	247.793	4886.2	7/8	272.926	5927.6
<b>63</b>	197.920	3117.2	<b>71</b>	223.053	3959.2	<b>79</b>	248.186	4901.7	<b>87</b>	273.319	5944.7
1/8	198.313	3129.6	1/8	223.446	3973.1	1/8	248.579	4917.2	1/8	273.711	5961.8
1/4	198.706	3142.0	1/4	223.838	3987.1	1/4	248.971	4932.7	1/4	274.104	5978.9
3/8	199.098	3154.5	3/8	224.231	4001.1	3/8	249.364	4948.3	3/8	274.497	5996.0
1/2	199.491	3166.9	1/2	224.624	4015.2	1/2	249.757	4963.9	1/2	274.889	6013.2
5/8	199.884	3179.4	5/8	225.017	4029.2	5/8	250.149	4979.5	5/8	275.282	6030.4
3/4	200.277	3191.9	3/4	225.409	4043.3	3/4	250.542	4995.2	3/4	275.675	6047.6
7/8	200.669	3204.4	7/8	225.802	4057.4	7/8	250.935	5010.9	7/8	276.067	6064.9



# ENGINEERING INFORMATION

Table 50—Circumferences and Areas of Circles (88—140% Diameters)

Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area	Diam.	Circum.	Area
88	276.460	6082.1	1/4	302.378	7276.0	1/4	341.648	9288.6	1/4	391.914	12,222.8
1/8	276.853	6099.4	3/8	302.771	7294.9	1/2	342.433	9331.3	1/2	392.699	12,271.8
1/4	277.246	6116.7	1/2	303.164	7313.8	3/4	343.219	9374.2	3/4	393.484	12,321.0
3/8	277.638	6134.1	5/8	303.556	7332.8	1	344.000	9417.1	1	394.270	12,370.2
1/2	278.031	6151.4	3/4	303.949	7351.8	1 1/4	344.790	9460.2	1 1/4	395.055	12,419.5
5/8	278.424	6168.8	1	304.342	7370.8						
3/4	278.816	6186.2									
1	279.209	6203.7									
89	279.602	6221.1	97	304.734	7389.8	110	345.575	9503.3	126	395.841	12,469.0
1/8	279.994	6238.6	1/4	305.127	7408.9	1/2	346.360	9546.6	1/2	396.626	12,518.5
1/4	280.387	6256.1	3/8	305.520	7428.0	3/4	347.146	9589.9	3/4	397.411	12,568.1
1/2	280.780	6273.7	1/2	305.913	7447.1	1	347.931	9633.3	1	398.197	12,617.9
3/8	281.173	6291.2	5/8	306.305	7466.2						
1/2	281.565	6308.8	3/4	306.698	7485.3	111	348.717	9676.9	127	398.982	12,667.7
3/4	281.958	6326.4	1	307.091	7504.5	1/4	349.502	9720.5	1/4	399.768	12,717.6
1	282.351	6344.1	3/4	307.483	7523.7	1/2	350.287	9764.3	1/2	400.553	12,767.6
						3/4	351.073	9808.1	3/4	401.338	12,817.7
90	282.743	6361.7	98	307.876	7543.0	112	351.858	9852.0	128	402.124	12,868.0
1/8	283.136	6379.4	1/4	308.269	7562.2	1/2	352.644	9896.1	1/2	402.909	12,918.3
1/4	283.529	6397.1	3/8	308.661	7581.5	3/4	353.429	9940.2	3/4	403.695	12,968.9
1/2	283.921	6414.9	1/2	309.054	7600.8	1	354.214	9984.4	1	404.480	13,019.2
3/8	284.314	6432.6	5/8	309.447	7620.1						
1/2	284.707	6450.4	3/4	309.840	7639.5	113	355.000	10,028.7	129	405.265	13,069.8
3/4	285.100	6468.2	1	310.232	7658.9	1/4	355.785	10,073.2	1/4	406.051	13,120.5
1	285.492	6486.0	3/4	310.625	7678.3	1/2	356.570	10,117.7	1/2	406.836	13,171.3
						3/4	357.356	10,162.3	3/4	407.621	13,222.2
91	285.885	6503.9	99	311.018	7697.7	114	358.141	10,207.0	130	408.407	13,273.2
1/8	286.278	6521.8	1/4	311.410	7717.1	1/2	358.927	10,251.9	1/2	409.192	13,324.3
1/4	286.670	6539.7	3/8	311.803	7736.6	3/4	359.712	10,296.8	3/4	409.978	13,375.5
1/2	287.063	6557.6	1/2	312.196	7756.1	1	360.497	10,341.8	1	410.763	13,426.8
3/8	287.456	6575.5	5/8	312.588	7775.6						
1/2	287.848	6593.5	3/4	312.981	7795.2	115	361.283	10,386.9	131	411.549	13,478.2
3/4	288.241	6611.5	1	313.374	7814.8	1/4	362.069	10,432.1	1/4	412.334	13,529.7
1	288.634	6629.6	3/4	313.767	7834.4	1/2	362.854	10,477.4	1/2	413.119	13,581.3
						3/4	363.639	10,522.8	3/4	413.905	13,633.0
92	289.027	6647.6	100	314.159	7854.0	116	364.425	10,568.3	132	414.690	13,684.8
1/8	289.419	6665.7	1/4	314.549	7873.3	1/2	365.210	10,613.9	1/2	415.476	13,736.7
1/4	289.812	6683.8	3/8	314.945	7893.3	3/4	365.995	10,659.6	3/4	416.261	13,788.6
1/2	290.205	6701.9	1/2	315.339	7913.3	1	366.781	10,705.4	1	417.046	13,840.7
3/8	290.597	6720.1	5/8	315.730	7932.7						
1/2	290.990	6738.2	3/4	316.125	7952.2	117	367.566	10,751.3	133	417.832	13,892.9
3/4	291.383	6756.4	1	316.515	7972.2	1/4	368.352	10,797.3	1/4	418.617	13,945.2
1	291.775	6774.7				1/2	369.137	10,843.4	1/2	419.402	13,997.6
						3/4	369.922	10,889.6	3/4	420.188	14,050.0
93	292.168	6792.9	102	320.442	8171.3	118	370.708	10,935.9	134	420.973	14,102.6
1/8	292.561	6811.2	1/4	321.228	8211.4	1/2	371.493	10,982.3	1/2	421.759	14,155.3
1/4	292.954	6829.5	3/8	322.013	8251.6	3/4	372.279	11,028.8	3/4	422.544	14,208.0
1/2	293.346	6847.8	1/2	322.799	8291.9	1	373.064	11,075.3	1	423.329	14,260.9
3/8	293.739	6866.1	5/8	323.584	8332.3	119	373.849	11,122.0	135	424.115	14,313.9
1/2	294.132	6884.5	3/4	324.369	8372.8	1/4	374.635	11,168.8	1/4	424.900	14,366.9
3/4	294.524	6902.9	1	325.155	8413.4	1/2	375.420	11,215.7	1/2	425.686	14,420.1
1	294.917	6921.3	3/4	325.940	8454.1	3/4	376.206	11,262.7	3/4	426.471	14,473.4
						1	376.991	11,309.7			
94	295.310	6939.8	104	326.726	8494.9	120	377.776	11,356.9	136	427.257	14,526.7
1/8	295.702	6958.2	1/4	327.511	8535.8	1/2	378.562	11,404.2	1/2	428.042	14,580.2
1/4	296.095	6976.7	3/8	328.296	8576.6	3/4	379.347	11,451.5	3/4	428.827	14,633.7
1/2	296.488	6995.3	1/2	329.082	8617.8	1			1	429.613	14,687.4
3/8	296.881	7013.8	5/8	329.867	8659.0	121	380.133	11,499.0	137	430.398	14,741.1
1/2	297.273	7032.4	3/4	330.653	8700.3	1/4	380.918	11,546.6	1/4	431.184	14,795.0
3/4	297.666	7051.0	1	331.438	8741.7	1/2	381.703	11,594.2	1/2	431.969	14,848.9
1	298.059	7069.6	3/4	332.223	8783.2	3/4	382.489	11,642.0	3/4	432.754	14,903.0
						1					
95	298.451	7088.2	106	333.009	8824.7	122	383.274	11,689.9	138	433.540	14,957.1
1/8	298.844	7106.9	1/4	333.794	8866.4	1/2	384.060	11,737.8	1/2	434.325	15,011.4
1/4	299.237	7125.6	3/8	334.580	8908.2	3/4	384.845	11,785.9	3/4	435.110	15,065.7
1/2	299.629	7144.3	1/2	335.365	8950.1	1	385.630	11,834.0	1	435.896	15,120.1
3/8	300.022	7163.0	5/8	336.150	8992.0	123	386.416	11,882.3	139	436.681	15,174.7
1/2	300.415	7181.8	3/4	336.936	9034.1	1/4	387.201	11,930.6	1/4	437.467	15,229.3
3/4	300.807	7200.6	1	337.721	9076.3	1/2	387.987	11,979.1	1/2	438.252	15,284.0
1	301.200	7219.4	3/4	338.507	9118.5	3/4	388.772	12,027.6	3/4	439.037	15,338.9
						1					
96	301.593	7238.2	108	339.292	9160.9	124	389.557	12,076.3	140	439.823	15,393.8
1/8	301.986	7257.1	1/4	340.077	9203.3	1/2	390.343	12,125.0	1/2	440.608	15,448.8
			1/2	340.863	9245.9	3/4	391.128	12,173.9	3/4	441.394	15,504.0
									1	442.180	15,559.2

# Standard Terms and Conditions of Sale

## 1. CONTRACT

Unless otherwise stated, all sales transactions are expressly subject to these terms and conditions. Modifications or additions will be recognized only if accepted in writing by a principal officer of Company or his designated representative. Provisions of Buyer's Purchase Order or other documents that add to or differ from these Terms and Conditions of Sale are EXPRESSLY rejected. No waiver of these Terms and Conditions or acceptance of others shall be construed from failure of Company to raise objections.

## 2. QUOTATIONS AND PUBLISHED PRICES

Quotations automatically expire forty-five (45) calendar days from the date issued unless otherwise stated in the quotation and are subject to withdrawal by notice within that period. Company reserves the right to unilaterally extend such quotation up to 6 months from the date of issuance. Prices shown on the published price lists and other published literature issued by the Company are not unconditional offers to sell, and are subject to change without notice. The Company's prices for equipment unless otherwise specified, do not include an allowance for installation and/or final on-site adjustment. Prices shall be subject to adjustment to those in effect at time of shipment.

## 3. TAXES

The Company's prices do not include any applicable sales, use, excise or similar taxes; and the amount of any such tax which the Company may be required to pay or collect will be added to each invoice unless the Buyer has furnished the Company with a valid tax exemption certificate acceptable to the taxing authorities.

Where a Buyer fails to furnish the required documentation, the previously unpaid sales, use, excise, or similar tax will be billed to the Buyer.

If, upon subsequent sales, use, excise, or similar tax audit, an exemption certificate provided to the Company by Buyer is, through no fault of the Company, determined to be invalid, the Company will attempt to acquire a valid exemption certificate, notarized affidavit of exempt use or other necessary documentation from Buyer. If Buyer fails to timely furnish a valid exemption certificate, notarized affidavit or other necessary documentation, the previously unpaid sales, use or similar excise tax will be billed to Buyer.

## 4. TERMS OF PAYMENT

Except as otherwise provided herein, terms are cash net 30 days from date of invoice. Amounts past due are subject to a service charge of 1.5% per month (or fraction thereof) or maximum contract rate permitted by law. If the Company deems that by reason of the financial condition of the Buyer or otherwise, the continuance or production or shipment on the terms specified herein is not justified, the Company may require full or partial payment in advance.

On orders of \$100,000 or more and having delivery schedule 6 months or longer from date of order, the standard method of payment will be Progressive Deposits.

## 5. DELIVERY

Delivery dates indicated in the contract documents are approximate and are based on prompt receipt of all necessary information regarding the equipment covered by the contract. The Company will use reasonable efforts to meet the indicated delivery dates, but cannot be held responsible for its failure to do so. In the event of any delay in delivery caused by the Buyer, the Company will store and handle all items ordered at the Buyer's risk and will invoice the Buyer for the unpaid portion of the contract price, plus storage, insurance and handling charges, on or after the date on which the equipment is ready for delivery, payable in full within 30 days from invoice date. Title to the equipment and risk of loss shall pass to Buyer upon delivery to a carrier.

## 6. DELIVERY AND HANDLING CHARGES

Shipments are F.O.B. point of shipment. Delivery and handling charges will be prepaid and billed as a separate item on the equipment invoice on the basis of company's current delivery and handling policies.

## 7. SUBSTITUTIONS

Unless specifically restricted on a purchase order, the Company reserves the right to substitute the latest superseding design and manufactured equivalent product where the interchangeability of the product is based on form, fit, and function, in place of the product ordered.

## 8. CHANGES

Buyer may with the express written consent of the Company make changes in the specifications for equipment or work covered by the contract. In such event the contract price and delivery dates shall be equitably adjusted. The Company shall be entitled to payment for reasonable profit plus costs and expenses incurred by it for work and materials rendered unnecessary as a result of such changes and for work and materials required to effect said changes.

## 9. CANCELLATION

Undelivered parts of any order may be cancelled by the Buyer only with the written approval of the Company. If the Buyer makes an assignment for the benefit of creditors, or in the event that the Company for any reason feels insecure about the Buyer's willingness or ability to perform, then Company shall have the unconditional right to cancel this sales transaction.

In the event of any cancellation of this order by either party, the Buyer shall pay to the Company the reasonable costs and expenses (including engineering expenses and all commitments to its suppliers and subcontractors) incurred by the Company prior to receipt of notice of such cancellations, plus the Company's usual rate of profit for similar work.



# Standard Terms and Conditions of Sale

## 10. SECURITY INTEREST

Buyer agrees to pay for the equipment according to the Company's payment terms and does hereby grant to the Company, a purchase money security interest in the equipment until such time as it is fully paid. Buyer will assist Company in taking the necessary action to perfect and protect Company's security interest. In the event of a default by Buyer, the Company shall be entitled to any of the rights and remedies provided by law.

## 11. DEFAULT

Upon default and placing of this instrument with an attorney for collection or repossession of equipment, Buyer agrees to reimburse attorney fees and court costs incurred by the Company in connection therewith.

## 12. WARRANTIES:

**COMPANY EXPRESSLY WARRANTS THE EQUIPMENT MANUFACTURED BY IT AS SET FORTH HEREIN. COMPANY MAKES NO OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED (INCLUDING WITHOUT LIMITATION WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). IN ADDITION, THE FOLLOWING SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDIES OF BUYER FOR ANY BREACH BY COMPANY OF ITS WARRANTIES HEREUNDER.**

### A. MOTORS/DODGE/MASTER/REEVES PRODUCTS

The Company warrants that the equipment covered by this warranty will be free from defects in workmanship and material (if properly installed, operated and maintained in accordance with specifications) for a period of one year from date of installation, or 18 months from date of shipment to the Buyer, whichever is shorter.

If within this period the Company receives from the Buyer written notice of any alleged defects in any such apparatus and if the apparatus is not found to be in conformity with this warranty (the Buyer having provided the Company a reasonable opportunity to perform any appropriate tests thereon) the Company will, at its option, either repair the same or supply a replacement therefor.

The Company under either option shall have the right to require Buyer to deliver the apparatus for this purpose to its designated service center and the Buyer shall pay all charges for in-bound and out-bound transportation and for services of any kind, diagnostic or otherwise, excepting only the direct and actual costs of apparatus repair or replacement as provided above.

### B. STANDARD CONTROL PRODUCTS

The Company warrants that the equipment covered by this warranty will be free from defects in workmanship and materials, (if properly installed, operated and maintained in accordance with the Company's specifications) for a period of one year from date of installation or 18 months from date of shipment, whichever period is shorter subject to the limitations hereunder set forth.

Should any such defects be found and reported during the first 30 days after installation (if installation occurs during the warranty period) the Company will correct such defects, furnishing replacement parts and service free of charge to the Buyer. Thereafter, during the remaining warranty period the Company's liability under this warranty shall be solely limited to supplying necessary replacement parts and material.

This warranty shall not apply where equipment is operated above rated load capacity or subjected to accident, alteration, misuse, or abuse.

### C. PROGRAMMABLE CONTROLS

The Company warrants that the equipment covered by this warranty will be free from defects in workmanship and materials for a period of one year from date of installation or 18 months from date of shipment, whichever occurs first.

Should any such defects be found and reported during the warranty period, the Company shall supply a replacement and assume the shipping cost of the replacement unit. These undertakings on the Company's part are conditioned upon return of the defective unit, freight prepaid and absorbed by the Buyer.

### D. ENGINEERED SYSTEM

The Company warrants that for a period of one year from Start-up or 18 months from date of shipment to the Buyer, whichever occurs first, the Engineered System covered by this warranty will perform in accordance with specifications if final adjustments and start-up operations are approved by qualified Company personnel. The Company does not warrant that the Engineered System covered by this warranty will perform in accordance with specifications to the extent that equipment forming a part of the Engineered System is not supplied by or approved for incorporation into the System by the Company. The Company will correct during the warranty period any deficiency in meeting specifications. If, after reasonable effort the Company cannot correct said deficiencies, the Company will make an equitable price adjustment based on the performance actually provided, not to exceed the purchase price. The Company further warrants that the equipment, parts and components supplied by it and forming a part of the Engineered System covered by this warranty to be free from defects in material and workmanship for a period of one year from start-up or 18 months from date of shipment to the buyer whichever period occurs first. The Company's liability shall be solely limited to the supplying of replacement parts and materials.

For purposes of this warranty, start-up will have been deemed to be completed when either the Engineered System is partially or completely put into use or when the Company has met the specifications whichever is sooner.



# Standard Terms and Conditions of Sale

## E. SOFTWARE/LICENSE

The Company warrants that software will be free from errors in program logic, clerical program preparation and transcription and will execute accordingly when properly installed. Software warranty, when sold separately, shall be one year from date of initial use or 18 months from date of shipment to the Buyer, whichever is shorter. Software supplied with Company equipment shall have the same warranty as the Company equipment with which it is supplied.

If the software does not meet the above warranty, and if the Buyer promptly notifies the Company and provides the description of the error and complete information about the manner of its discovery, the Company shall thereupon correct any defect or error (at its option); (a) by modifying or making available to the Buyer instructions for modifying any erroneous program; or (b) by making available at the Company's Plant necessary corrected or replacement programs.

Certain programs supplied by Company are copyrighted, and if so, are marked with the copyright notice. Buyer is granted a license to make copies of such programs for use only with the system for which such programs were acquired. Other programs supplied by Company are trade secrets, and if so, are marked confidential. Buyer agrees to use its reasonable efforts to maintain such programs confidential and to not disclose such programs to third parties for a period of five years after receipt unless such programs enter the public domain through no fault of Buyer. Buyer agrees to use those programs marked confidential only with the system for which they were acquired.

The foregoing warranty shall not apply to defects resulting from:

1. unauthorized modification;
2. Buyer-supplied software or interfacing.

## F. REPAIRED PRODUCTS WARRANTY

On repaired equipment the warranty shall be that so noted at time of repair as determined by type of repair required however — it shall only apply to parts repaired or replaced by the Company. No separate warranty shall apply to repaired equipment as a whole or to parts not repaired or replaced by the Company.

## G. SPECIAL

The foregoing warranties do not apply to all equipment sold by the Company. In certain cases the warranty period is less than or more than one year or provides for a payment of money or replacement to the Buyer based on the age or extent of usage of the equipment in lieu of repair or replacement by the Company. Such warranties may be obtained from the Company sales office.

## H. NON-RELIANCE PRODUCTS

Equipment sold but not manufactured by the Company will be warranted as to defects in material and workmanship consistent with the warranty policy of the original manufacturer of the equipment.

## I. GENERAL

The foregoing warranties are further subject to the following general conditions:

1. if the Buyer requests the performance of warranty work provided for under the foregoing warranties during other than normal Company work periods, the Buyer shall be required to pay for all premium time.
2. if the Buyer requests the performance of warranty work provided for under the foregoing warranties outside of the contiguous United States, the Buyer shall be required to pay for the travel time, living and travel expenses of any Company personnel required to perform such warranty work.
3. These warranties shall not apply where the equipment has been subjected to accident, alteration, misuse, abuse, or failure on the part of the Buyer to ensure proper storage, installation, operation and maintenance of the equipment. Use of equipment in improper or non-recommended applications or parts or components used in assemblies not meeting the Company's specifications or quality standards, (eg., non-Dodge or non-Taper-Lock® parts or components) which cause damage to the equipment will not be covered by these warranties.

## 13. INDEMNITY

The Company agrees to indemnify the Buyer and hold it harmless from and against any direct loss suffered and any liability to third parties whenever such loss or liability is directly due to bodily injury (including death) to any person or direct damage to any property occurring in the course of and caused by the negligent act or omission of the Company in the performance of any work on the premises of Buyer. This indemnity shall include attorneys fees and settlements of claim or suit reasonable under the circumstances.

## 14. PATENT INFRINGEMENT

The Company shall defend any suit or proceeding brought against the Buyer so far as the same is based on a claim that any equipment of the Company's design furnished hereunder or any part thereof, constitutes an infringement of any United States patents, if notified promptly in writing and given authority, information and assistance (at the Company's expense) for the defense of the same and if such alleged infringement is not the result of a design or other special requirements specified by the Buyer or the result of the application or the use to which such equipment is put by the Buyer or others. The Company will pay all damages and costs awarded in such suit or proceeding against the Buyer, provided that the Company shall have the sole and exclusive right to defend, settle or compromise any suit or proceedings and the Buyer takes no action which would materially detract from the Company's ability to conduct an effective defense, settlement or compromise. In case such equipment or part is in such suit held to infringe any such patent and the use thereof enjoined, the Company shall at its expense either, at its option (a) obtain for the Buyer the right to continue using such equipment or part, or (b) replace the same with non-infringing equipment, or (c) modify the same so that it becomes noninfringing, or (d) remove said equipment and refund the purchase price and the transportation and installation costs thereof. The foregoing states the entire liability of the Company to the Buyer for patent infringement.



# Standard Terms and Conditions of Sale

## 15. REGULATORY LAWS AND/OR STANDARDS

The performance of the parties hereto is subject to the laws of the United States.

The Company takes reasonable steps to keep its products in conformity with various nationally recognized standards and such regulations which may affect its products; however, the Company recognizes that its products are utilized in many regulated applications and that from time to time standards and regulations are in conflict with each other.

The Company makes no promise or representation that its product will conform to any federal, state or local laws, ordinances, regulations, codes or standards, except as particularly specified and agreed upon for compliance in writing as a part of the contract between Buyer and the Company. The Company prices do not include the cost of any related inspections or permits or inspection fees.

## 16. NUCLEAR LIMITATION OF USE

The equipment is not for use in or with any nuclear facility unless specifically so stated in Company's Quotation. If Company's Quotation does expressly acknowledge that the Company's equipment is to be used in or with a nuclear facility, Company's Special Nuclear Conditions will be attached hereto and shall control.

Buyer accepts the responsibility for insuring that the equipment is not used in violation of this limitation and Buyer shall indemnify and hold Company harmless from any and all liability (including such liability resulting from Company's negligence) arising out of said improper use.

## 17. DISCLAIMER OF DAMAGES

IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY TYPE OF SPECIAL, CONSEQUENTIAL, INCIDENTAL OR PENAL DAMAGES, WHETHER SUCH DAMAGES ARISE OUT OF OR ARE A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE; such damages shall include but not be limited to loss of profits or revenues, loss of use of the equipment or associated equipment, cost of substitute equipment, facilities, down time costs, increased construction costs or claims of Buyer's customers or contractors for such damages. Buyer agrees that in the event of a transfer, assignment, or lease of the equipment sold hereunder that Buyer shall secure for the Company the protection afforded to it in this paragraph.

## 18. LIMITATION OF LIABILITY

The Company shall not be liable for any loss, claim, expense or damage caused by, contributed to by or arising out of the acts or omissions of Buyer or third parties, whether negligent or otherwise. In no event shall the Company's liability for any cause of action whatsoever exceed the cost of the item giving rise to the claim, whether based in contract, warranty, indemnity, or tort (including negligence). Any suit arising hereunder must be commenced within one (1) year from the date the cause of action accrues. Except as provided in Article 13, the Company shall not indemnify any party.

## 19. NO RESPONSIBILITY FOR GRATUITOUS INFORMATION OR ASSISTANCE

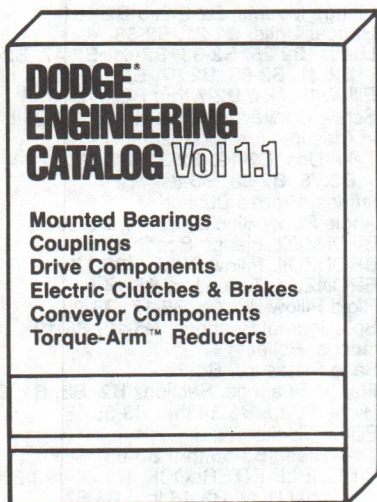
If Company provides Buyer with assistance or advice which concerns any parts/products/service supplied hereunder or any system or equipment in which any such part/product/service may be installed and which is not required pursuant hereto, the furnishing of such assistance or advice shall not subject Company to any liability, whether based in contract, warranty, tort (including negligence) or otherwise.

## 20. INTERPRETATION

Should any term or provision contained in the contract contravene or be invalid under applicable law, the contract shall not fail by reason thereof but shall be construed in the same manner as if such term or provision had not appeared therein.

Where the word "Company" is used it designates Reliance Electric Industrial Company, its divisions and subsidiaries.

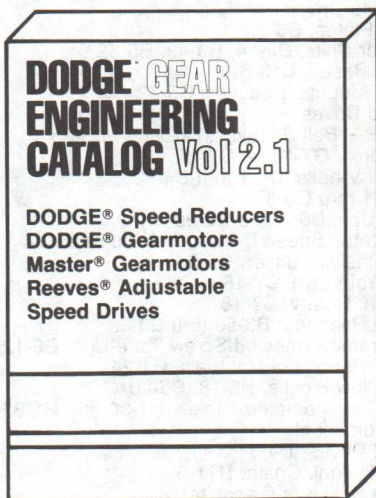
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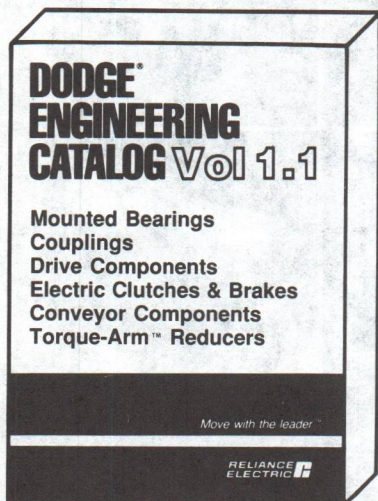
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# WE JUST MADE YOUR JOB A LITTLE EASIER.

A critical part of your job is to find the right speed reducer or gearmotor that can deliver the speed and torque you need for your specific application. And we just made it easier for you.

In almost every industry and almost every kind of application, Dodge® and Master® offer the product selection to meet your requirements. And we do it with proven performers such as Dodge Torque-Arm™ and TM speed reducers for heavy duty applications and the Dodge Tigear® reducer

and Master XL gearmotor for medium and light duty.

They all give you longer service, lower maintenance costs and reduced downtime. And they do it with quality gearing, rugged cast iron construction, mounting versatility, installation ease and a technically advanced, space-saving design. Further, we stand behind our products with distributors and engineers who have the technical expertise to help you with your application problems.

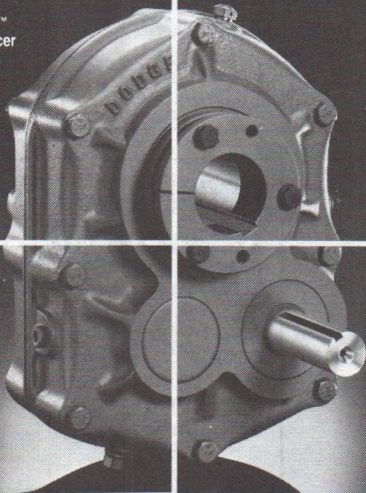
You'll get more efficiency, more performance and more value. In short, the best enclosed gear drive package available to get the job done.

Which is just what you'd expect when you move with the leader.

*Move with the leader.  
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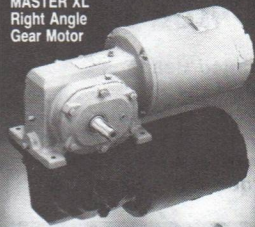
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**DODGE Tigear  
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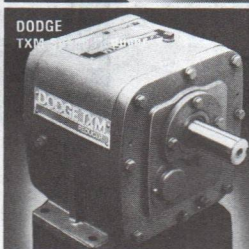
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For more information on the full line of DODGE Speed Reducers, Tigear® Right Angle, Master® XL Right Angle and Parallel, TM Concentric™ and Torque-Arm™ Shaft Mounted, call 1-803-297-4800. Or see your local DODGE, MASTER or RELIANCE ELECTRIC Distributor in the yellow pages.



# HOW MUCH CAN THIS SPEED REDUCER REDUCE YOUR COSTS?

Now—with the increased horsepower ratings of Dodge® Torque-Arm™ reducers—you can probably go to a smaller size reducer and still get the power you need.

Or stay with the same size reducer and expect a longer reducer life. Either way, you save money.

Since the Torque-Arm reducer mounts directly on the driven shaft, there's no need for a coupling, chain drive, sliding motor base or support structure. There's no

alignment problem. Exclusive twin tapered bushings provide easy, faster installation and a positive grip on the shaft. And that means savings, too.

The internal components of the Torque-Arm line have been improved as well. Rugged, cast iron housings are precision match-bored and provide strong, rigid support for bearings and gearing. The case carburized helical gearing produces high, efficient rolling gear action. And double lip seals keep lubricants in and contaminants

out. A full line of accessories add flexibility to your Torque-Arm reducer.

Dodge Torque-Arm reducers are 100% factory noise and leak tested to assure long life, trouble-free service and the value you expect from over one million units delivered.

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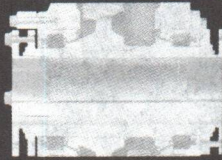
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**DODGE**  
Torque-Arm  
Speed Reducer

**Exclusive Twin Tapered Bushings**



- Easy installation and removal
- No puller required
- Eliminates reducer wobble
- Assures positive grip on shaft

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# YESTERDAY YOU PAID TOO MUCH TO MOVE GRAIN.

Today—with the increased horsepower ratings of Dodge® Screw Conveyor Drives—you can do a bigger job with a smaller size drive and that can mean big savings.


Dodge's enhanced horsepower ratings mean, in many applications, you can get the power you need in a smaller size Dodge drive or you can use the same size drive and get a longer working life. Either way, you save money.

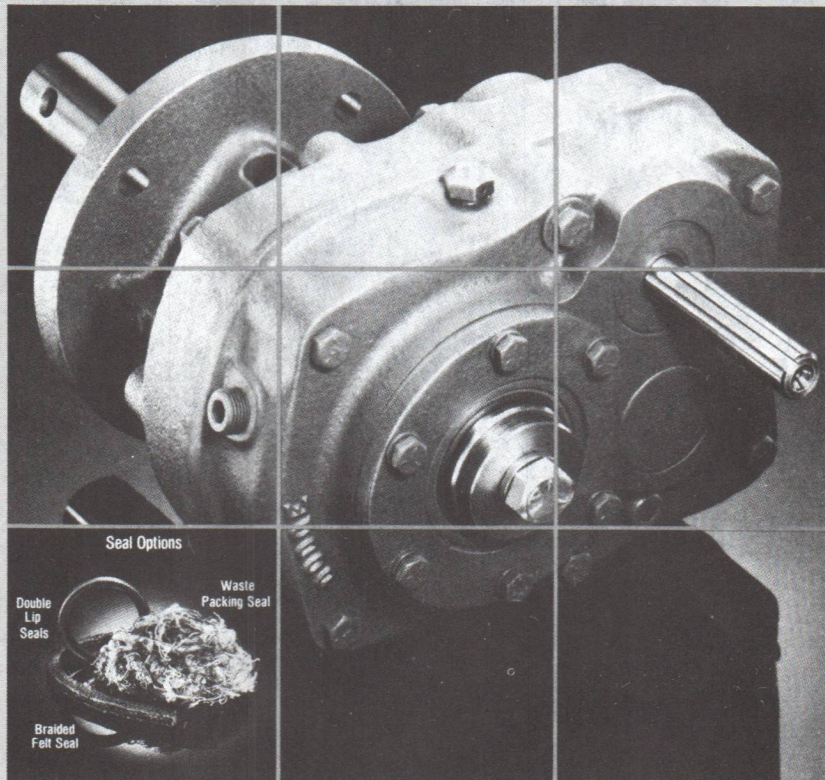
And the Dodge Screw Conveyor Drive saves in other ways. The strong, cast iron housing and high capacity thrust bearings mean less downtime. The industry standard CEMA design offers easy installation and interchangeability. The standard four-bolt adapter, with seal options, gives mounting conformity. And an adjustable packing adapter allows compressing of packing in the seal areas. Steel trough end plates offer easy mounting. And all-steel Dodge motor

mounts fit NEMA motor frames.

All in all, the Dodge Screw Conveyor Drive can help you move more. For less.

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For more information on the full line of DODGE Speed Reducers, Tigear® Right Angle and Parallel, TM Concentric™ and Torque-Arm™ Shaft Mounted, call 1-800-297-4800. Or see your local DODGE/RELiance ELECTRIC Distributor in the yellow pages.



# NOW YOU CAN MAKE MONEY WITHOUT FINDING OIL.

You won't find oil on the floor around a Dodge® Tigear® speed reducer. *Lubricants are locked in*, contaminants out. It's installation ready and virtually maintenance free. That means big savings. It's the only pressure vented gearbox that has no open path to the environment.

It's the exclusive Tigear Relialube® system. Utilizing a unique bellows design, a special compression chamber lowers the gearcase pressure without the use of conventional vents. That means *no seepage*

or contamination. And the synthesized hydrocarbon lubricant used in Tigear reducers won't break down under normal operating conditions. It allows an unusually wide operating temperature range of -40°F to 200°F.

Tigear reducers' smooth lines and rigid cast iron construction also provide good washdown capability and excellent corrosion resistance.

And Tigear reducers can save you installation time as well. It's factory filled

with oil, there are no vent plugs to install or reposition and it comes with an industry standard mounting base.

It all adds up to longer life, less maintenance and higher productivity. And that proves you can make money without finding oil.

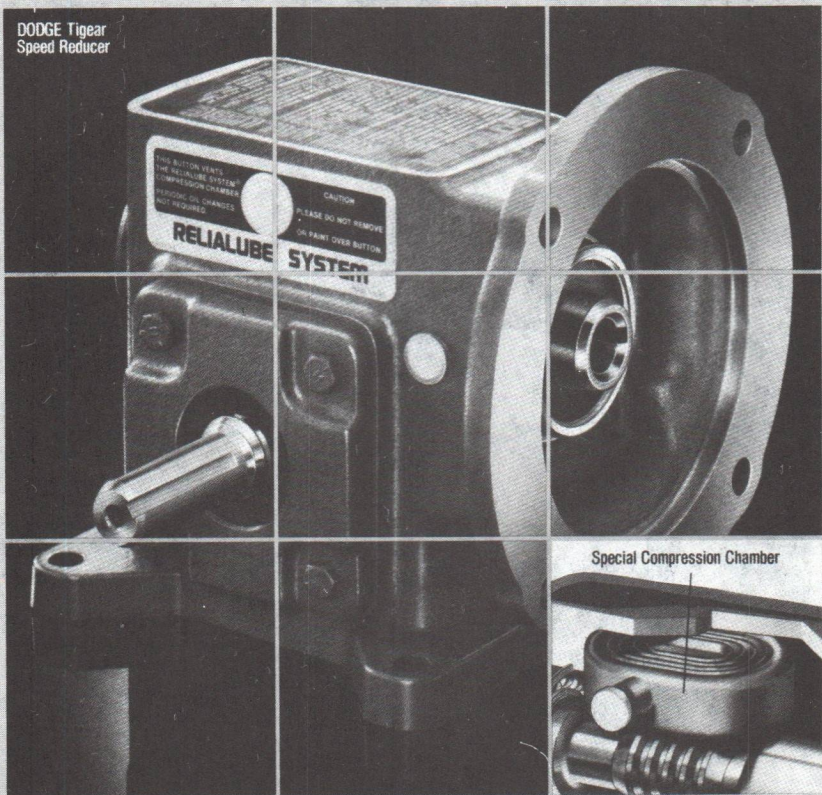
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DODGE Tigear  
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# THE REEVES® DRIVES WILL MOVE YOU RIGHT INTO THE FUTURE.

The reliable Reeves Moto Drive® line now offers even more quality and value in the most advanced mechanical adjustable speed drive available.

The future can be yours with the upgraded Reeves Moto Drive units. Improved ductile iron discs provide a tensile strength of more than twice cast iron and a higher surface hardness than steel. Also, the no-lube bushing and nylon key improve shock handling capacity, and a screw type shifter offers more positive

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The value doesn't stop there, either! For applications in the five to one speed range, there's the new MAS 51 drive that provides all the technical advancements of the Moto Drive line. It represents the most economical drive you can buy. In fact, there's not a comparable drive at a more competitive price anywhere.

But maybe the best thing is that the

future can be on its way to you within 48 hours. We have 271 stock ratings ready to ship.

With more than 10,000 drive configurations to choose from, there's a Reeves drive that's right for you.

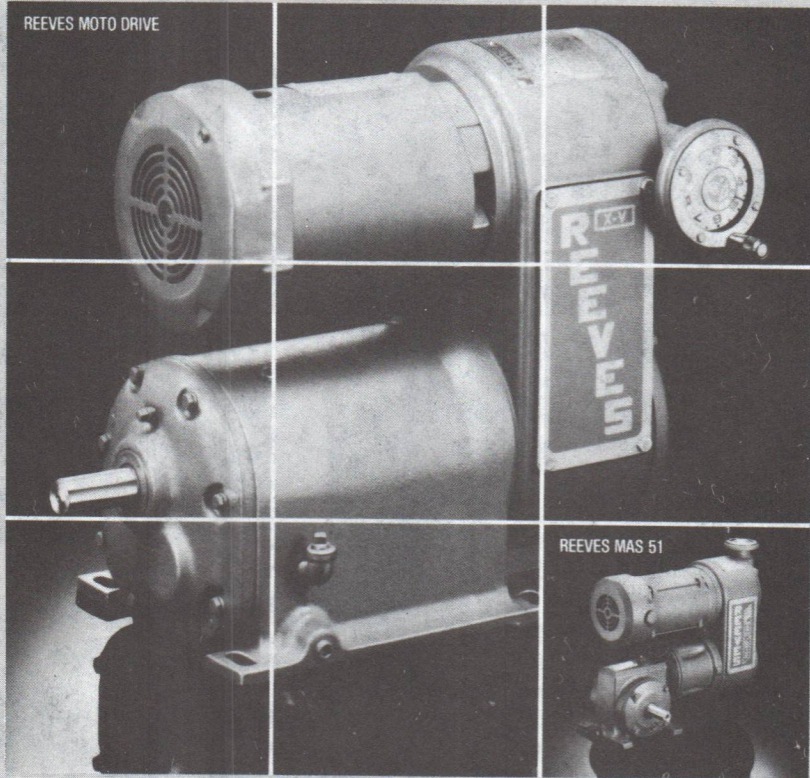
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REEVES MOTO DRIVE



For more information on the complete line of REEVES Mechanical Adjustable Speed Drives, call 1-803-297-4800. Or call your local Reeves/Reliance Electric Distributor in the yellow pages.



# THE DODGE® CST SYSTEM. IT STARTS SOFTER SO IT WORKS HARDER.

**NOW DODGE GIVES YOU A TRUE REPEATABLE "SOFT START" SYSTEM WITH NO BUCKS, JUMPS OR JOLTS. THAT MEANS LONGER LIFE, LESS MAINTENANCE AND LESS DOWN TIME FOR YOUR CONVEYOR SYSTEMS.**

The CST Controlled Start Transmission is another example of how Dodge is helping move materials faster, cheaper and more efficiently.

It's designed specifically for the mining industry and field-proven to offer easier

maintenance and less down time.

The Dodge CST requires less power in operation so it saves money. It incorporates specially designed bearings and taconite seals for longer life. And since the Dodge CST is American made, using standard industry parts, interchange in the field is fast and easy.

Moreover, all your Dodge CST components—including technical assistance—are available from one source. Dodge.

The Dodge Controlled Start Transmission. It's the one conveyor drive that works as hard as America's miners do.

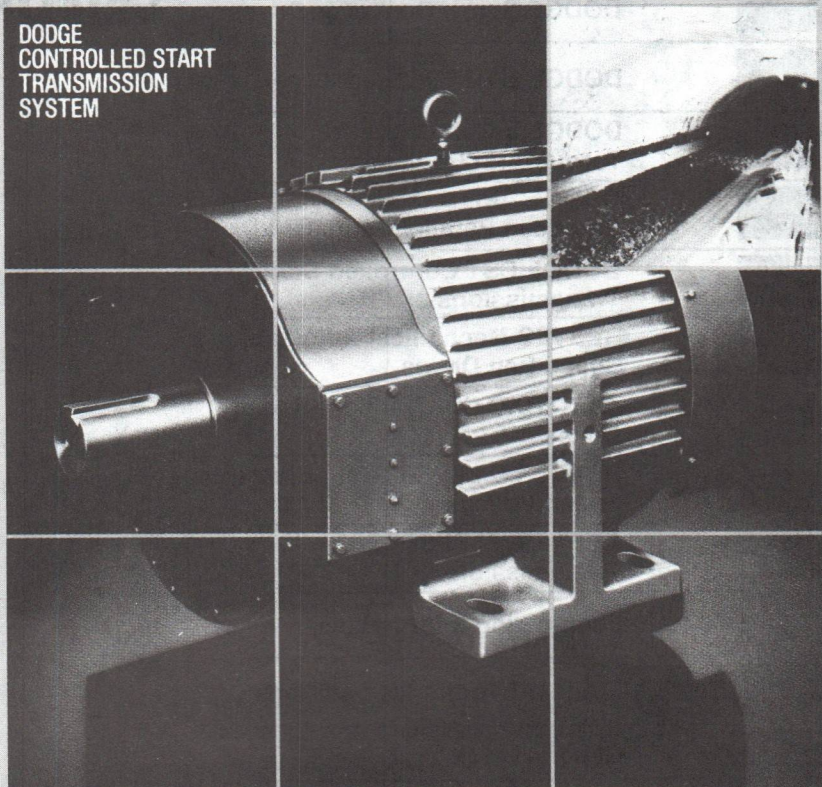
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G3	MASTER XL Parallel Reducers & Germotors
G4	DODGE TXM Concentric Shaft Reducers
G5	DODGE TORQUE-ARM Shaft Mounted Reducers
G6	DODGE Screw Conveyor Drives
G7	DODGE HYDROIL Reducers
G8	DODGE V-Belt Drives for Torque-Arm Reducers
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G10	DODGE CST Controlled Start Transmissions
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M2	DISCTRAC Dry Traction Disc Drives
M3	REEVES & LEWELLEN Adjustable Speed Pulleys
M4	REEVES VARI-SPEED® Transmissions
H1	Engineering Information
J1	Standard Terms & Conditions
J2	General Index

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